CATALOG PART No.
851653

PARTS CATALOG

for

WRIGHT CYCLONE

AIRCRAFT ENGINES

SERIES

GR-1820G-200

WRIGHT AERONAUTICAL CORPORATION
PATERSON, N. J., U.S.A.

WRIGHT GUARANTEE

WE WARRANT each new engine manufactured by us to be free from defects in material and workmanship under normal use and service and proper installation; our obligation under this warranty being limited to making good at our factory any part or parts thereof which shall within ninety (90) days after delivery of such engine to the original purchaser be returned to us with transportation charges prepaid and which our examination shall disclose to our satisfaction to have been defective; this warranty being expressly in lieu of all other warranties expressed or implied and of all other obligations or liabilities on our part and we neither assume nor authorize any other person to assume for us any other liability in connection with the sale of our engines.

This warranty does not cover any labor charges for replacement of parts, adjustments, repairs, or any other work done on Wright engines.

This warranty shall not apply to any engine which shall have been repaired or altered outside of our factory in any way so as, in our judgement, to effect its stability, or which has been subject to misuse, negligence or accident, or which shall have been operated at a speed exceeding the factory rated speed.

This warranty shall not apply to any engine which shall have been operated with other than specified fuel and oil.

We reserve the right to revise, change or modify the whole or any part of the construction of Wright engines without incurring any obligations to make the changes on engines previously sold.

We make no warranty whatever in respect to ignition, starting devices, generators, carburetors, or other trade accessories, inasmuch as they are usually warranted separately by their respective manufacturers.

WRIGHT AERONAUTICAL CORPORATION

Paterson, N. J., U. S. A.

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GENERAL INFORMATION

Description of Catalog

This catalog lists and describes the parts for all Cylone Series GR-1820-G-200 engines. PARTS OR ASSEMBLIES NOT LISTED ARE NOT STOCKED OR SUPPLIED.

The arrangement of the catalog avoids cross reference by grouping all parts according to their functions and by listing together all types of each part. Parts listed without a qualifying description are used on all Series GR-1820-G-200 Cyclone engines.

Part Numbers are used exclusively in the catalog to identify parts. Part Numbers are used exclusively in the factory to identify parts and dealers are requested to identify parts in their stock rooms by PART NUMBERS ONLY.

The "R" or reference numbers appearing on the illustrations are numerically arranged in the text and are used only to assist in locating a part in the text after it has been found in an illustration.

The figure numbers appearing in the text indicate the illustration on which the part is shown.

The table of contents at the front of the book shows the method of grouping the parts, the sequence of the groups and the illustration figure number on which they are shown. A comprehensive index is at the back of the book.

A numerical parts list is included in the back of the book and contains all the parts listed in the catalog except those which are no longer supplied. This list will be revised periodically to include the latest replacement parts and should be referred to when ordering parts.

The dynamic damper used in Wright engines is licensed under U.S. Patent No. 2103643 issued to F.M.M.B. Salomon.

Owners of Cyclone G-200 engines will be supplied with catalogs at no charge provided the owners write direct to the factory giving the serial numbers of their engines. To non-owners, the catalogs will be supplied at $.60 each.

Registered catalogs will be supplied to all Wright Parts Distributors and Approved Service Stations. Revised sheets will be issued from time to time and will be sent to all holders of registered catalogs. Please notify us of any change in name or address so that we may change our list of registered holders accordingly.

Prices

This catalog does not contain parts prices. A separate numerically arranged Parts Price List for Wright Aircraft Engines is available and will be supplied to owners of Wright engines upon request at no charge.

Terms

Except to Wright Parts Distributors with established credit, all parts are shipped by C.O.D. Express, C.O.D. Parcel Post or by freight with Sight Draft attached to Bill of Lading.

Quantity to Order

Wright Parts Distributors can make considerable savings in transportation charges if stock room quantities are properly controlled to enable orders to be placed for freight shipment. Numerous small rush orders are expensive and indicate a lack of good business practice.

How to Order

Parts must, whenever possible, be ordered by or through a Wright Parts Distributor.

A part must be designated by a PART NUMBER together with a name sufficiently descriptive to give the factory a check on the accuracy of the Part Number. DO NOT USE REFERENCE NUMBERS FOR ORDERING SPARE PARTS. IT IS NOT NECESSARY TO WRITE THE FULL CATALOG DESCRIPTION OF THE PART. Do not enter the price of the part on the order. Be sure to give definite shipping instructions. If shipping instructions on domestic orders are omitted, we shall ship by express or parcel post.

Stud Identification

Replacement studs are supplied in the following sizes: Standard, .003" O.S., .007" O.S. and .012" O.S.

The part numbers of any given standard size stud and its oversizes are identical except for the letter designation. These letter designations and the markings used for identification are as follows:

Letter Designation	*Size*	*Identification Marking*
xxxxDx	Standard	Plain end
xxxxHx	.003" O.S.	Pointed end
xxxxSx	.007" O.S.	Countersunk end
xxxxJx	.012" O.S.	Drilled end, 3/32" hole, 3/32" deep

GENERAL INFORMATION - Cont'd

"Right" and "Left"

The terms "Right" and "Left" in connection with parts listed in this catalog refer to the viewpoint from the rear of the engine.

Cylinder Numbers

Viewing the engine from the rear, cylinders are numbered in the clockwise rotation, the top cylinder being number one.

Engine Classification

Engines are classified both by serial number and by model. The serial numbers and model designations of the engines included in this catalog are as follows:

Wright Engine Model Designation	*Propeller Drive*	*Compression Ratio*	*Impeller Ratio*	*Octane Fuel*
GR-1820-G-202A	16:9 or 3:2	6.7:1	7.0:1	90
GR-1820-G-205A	16:9 or 3:2	6.7:1	7.14:1 & 10.0:1	90
GR-1820-G-205B	16:9 or 3:2	6.3:1	7.14:1 & 10.0:1	87

Wright Serial Number	*Wright Engine Model Designation*	*Wright Serial Number*	*Wright Engine Model Designation*	*Wright Serial Number*	*Wright Engine Model Designation*
27880	GR-1820-G-202A	29350-29374	GR-1820-G-205A	31829-31850	GR-1820-G-202A
28293	GR-1820-G-202A	29395-29404	GR-1820-G-205A	31851	GR-1820-G-205A
28299-28304	GR-1820-G-202A	29405-29407	GR-1820-G-205A	39626-39651	GR-1820-G-202A
29343-29346	GR-1820-G-202A	29441-29442	GR-1820-G-202A	39656-39657	GR-1820-G-202A
29347-29348	GR-1820-G-205A	31723-31828	GR-1820-G-205A		

The engine model designation and serial number are stamped on the name plate which is attached to the front face of the oil sump.

Engine Numbers

In listing engine numbers throughout this catalog, the word "inclusive" has not been used. It will be understood that all groups of engine numbers, such as 29343-29346, include both the first and last engine numbers.

TELEGRAPH OR CABLE ORDERS

Use of Code

Code words are for telegraphic or cable orders only. Begin telegram or cable with shipping code as per table below.

Use plain English to designate quantity wanted.

Example of Proper Code Order

Original message:

Ship to us by express two standard size cylinders with studs and two standard size 6.7:1 compression pistons complete with rings, piston pins and retainers.

Coded message:

YOWBA TWO GNUEK TWO GOGEN

Shipping Code

YOVUK	Ship to us by Air Mail
YOWAR	Ship to us by Air Express
YOWAZ	Ship to us by Air Freight
YOWBA	Ship to us by Express or Parcel Post
YOWDO	Ship to us by Parcel Post Special Handling
YOWEF	Ship to us by Freight
YOWFI	Ship to . . . . . by Air Express and charge to us
YOWFU	Ship to . . . . . by Air Freight and charge to us
YOWGA	Ship to . . . . . by Express or Parcel Post and charge to us
YOWIN	Ship to . . . . . by Parcel Post Special Handling and charge to us
YOWME	Ship to . . . . . by Freight and charge to us
YOWOB	Ship to . . . . . by Air Express C.O.D.
YOWRU	Ship to . . . . . by Express or Parcel Post C.O.D.
YOWUL	Ship to . . . . . by Parcel Post Special Handling C.O.D.
YOXAL	Ship to . . . . . by Freight C.O.D.
YOXBO	Advise date of shipment of our order number (or date) . . . . .
YOXEN	Acknowledge receipt of this order and give shipping date.

Confirmation

Always send a confirmation of telegram or cable by mail. Confirmation should contain both coded telegram or cable and translation.

Telegraphic Reply

If a telegraphic or cable acknowledgment of an order is required, be sure to add the code word YOXEN to your order. The above shipping code words are also used by the factory in telegrams and cables advising method of shipment.

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Thermocouple	31

ILLUSTRATIONS

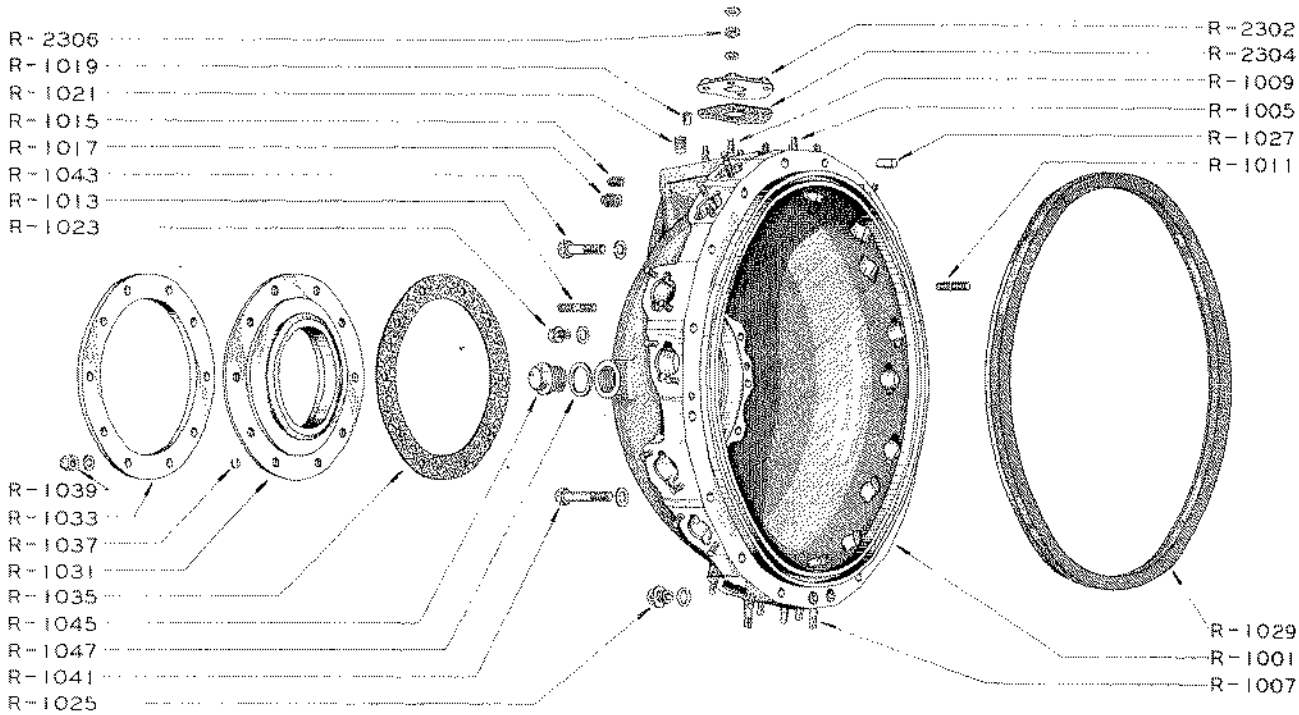

Figure 1

CRANKCASE FRONT SECTION

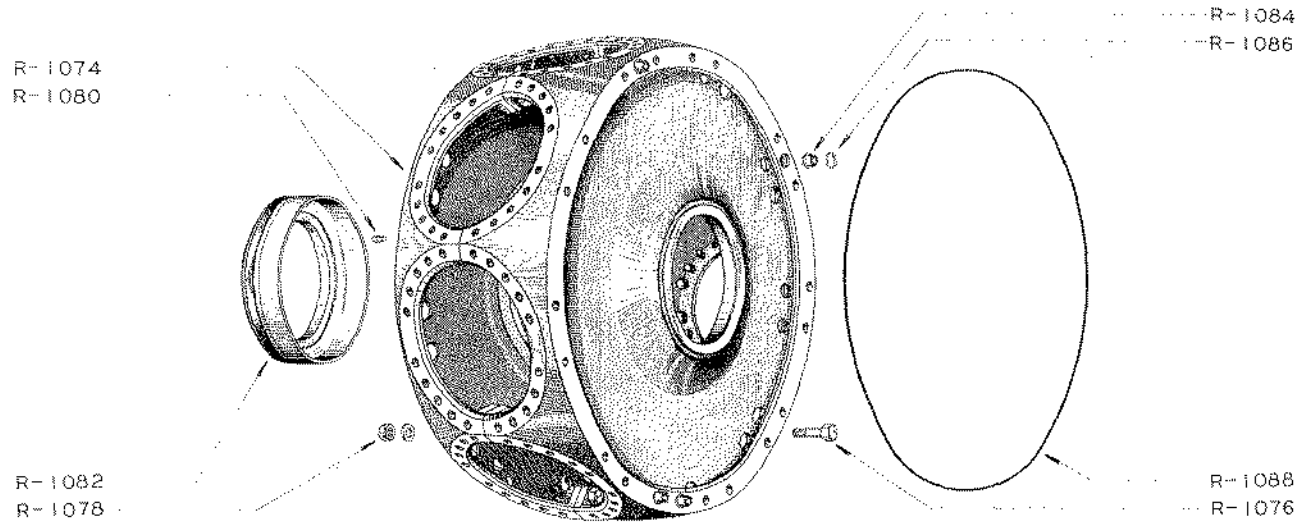

Figure 2

CRANKCASE MAIN SECTION

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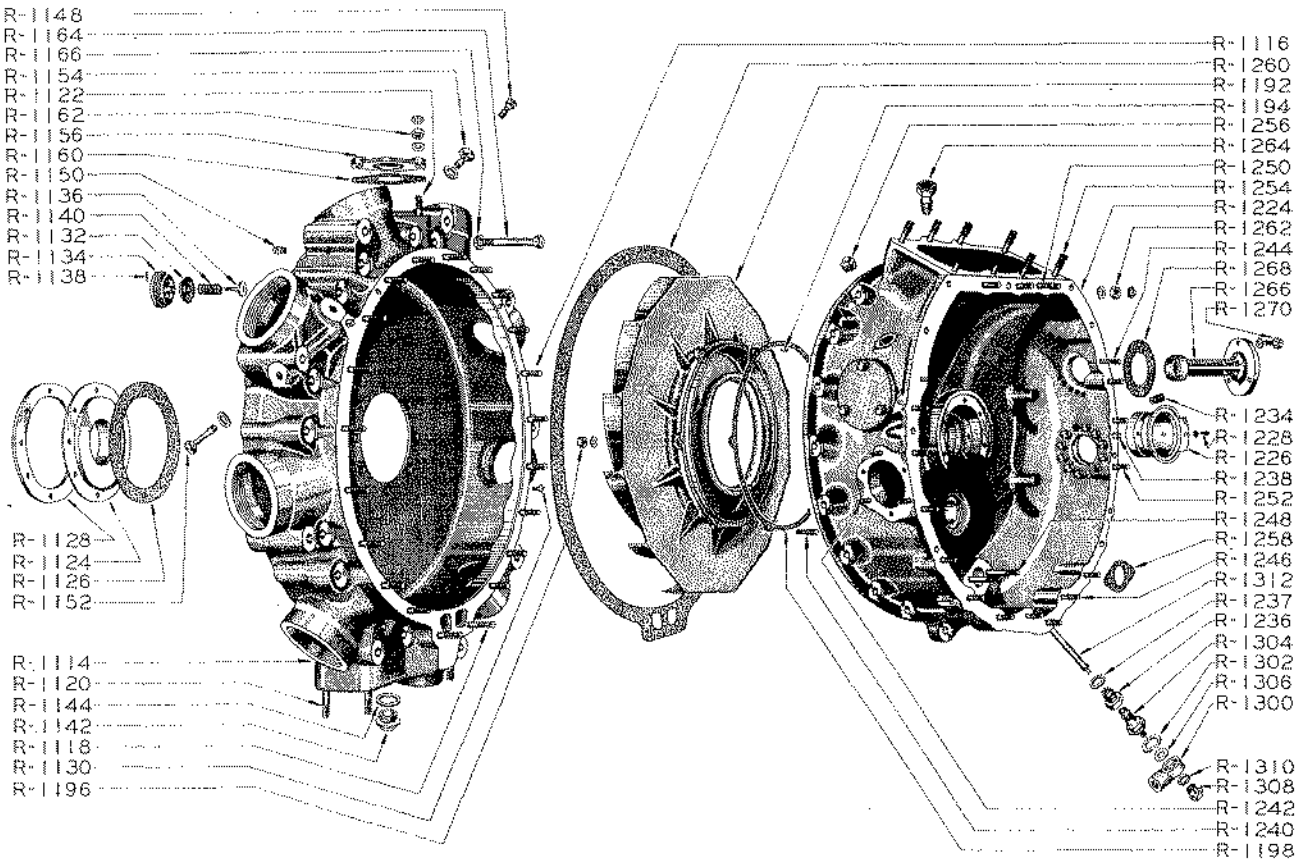

Figure 3

SUPERCHARGER HOUSINGS AND DIFFUSER PLATE

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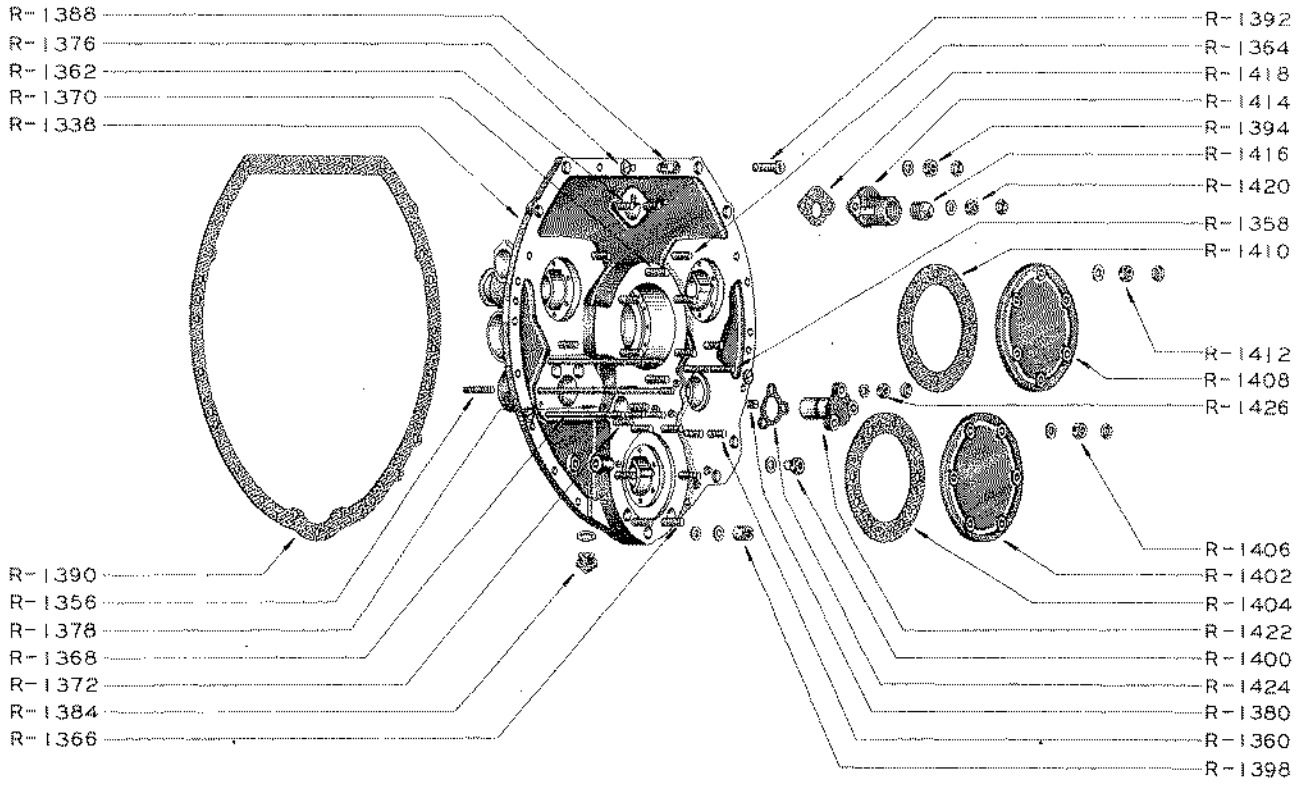


Figure 4

SUPERCHARGER HOUSING REAR COVER

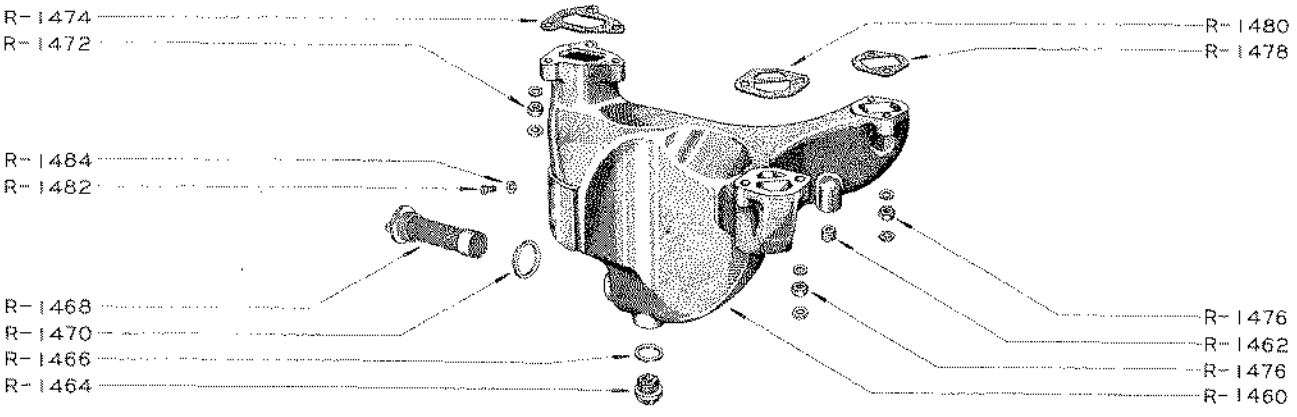


Figure 5

OIL SUMP

ILLUSTRATIONS - Cont'd

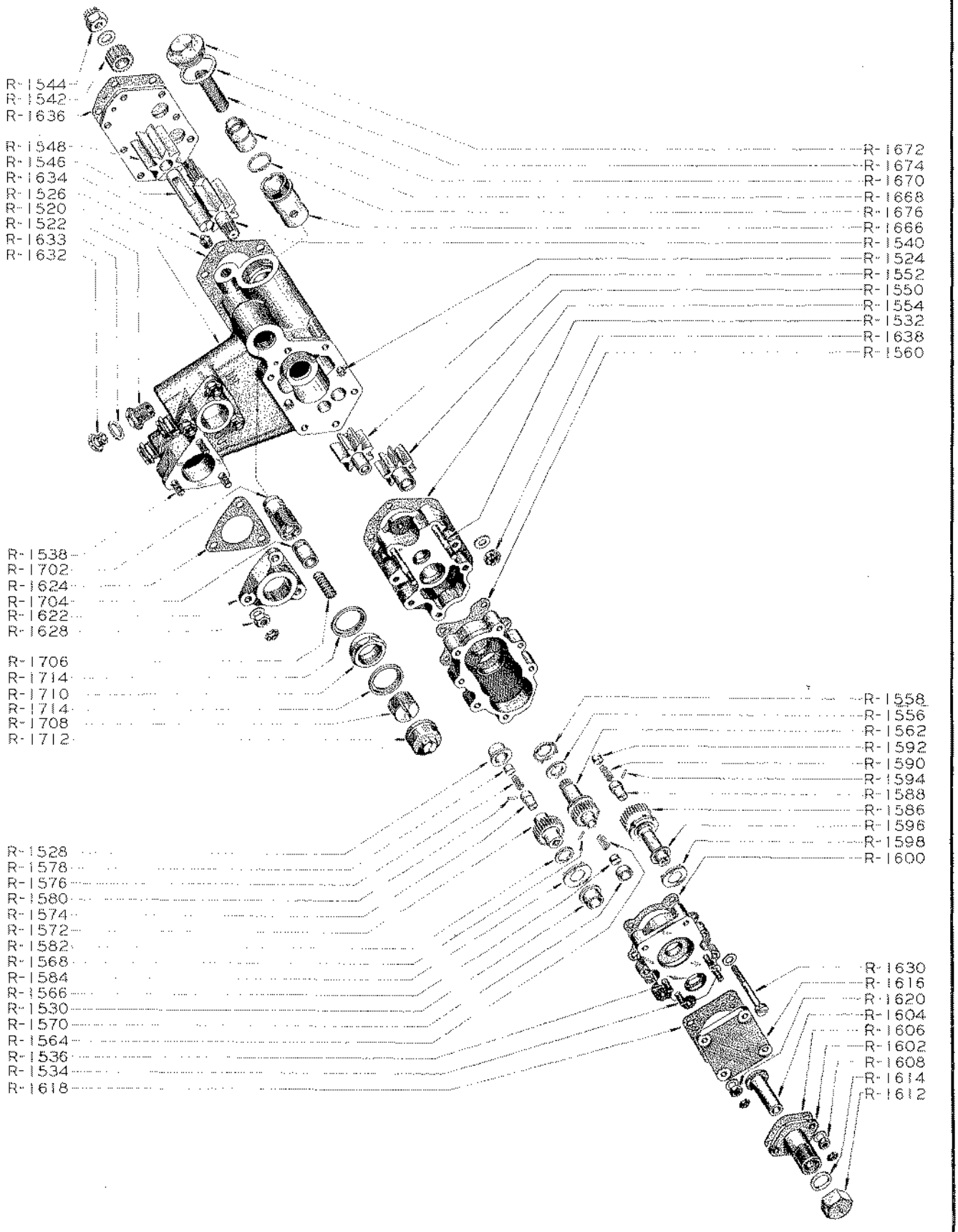


Figure 6
OIL PUMP

ILLUSTRATIONS - Cont'd

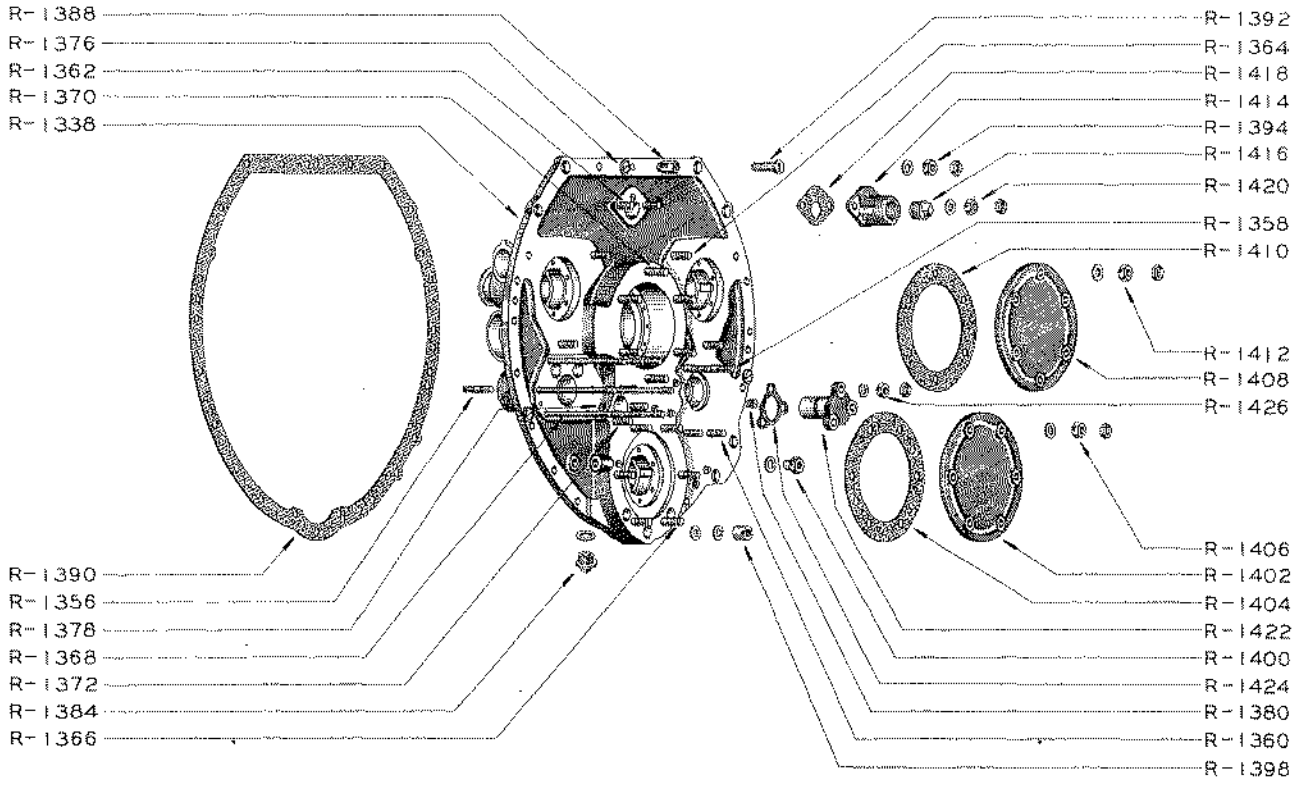


Figure 4

SUPERCHARGER HOUSING REAR COVER

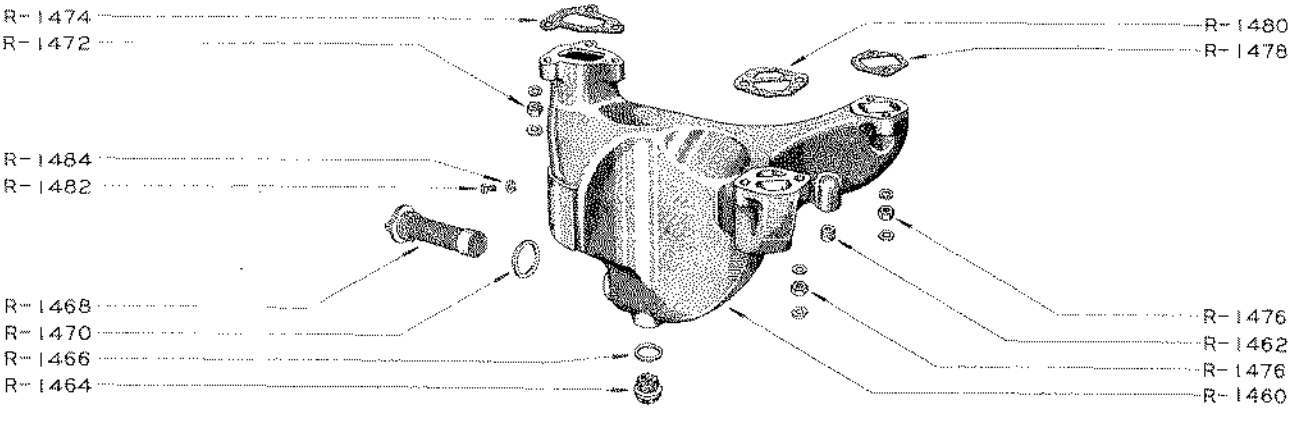


Figure 5

OIL SUMP

ILLUSTRATIONS - Cont'd

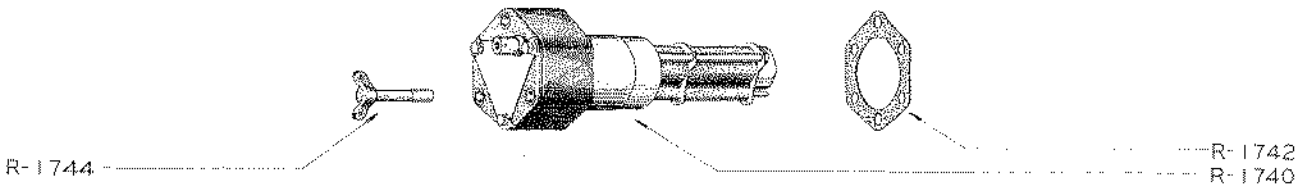


Figure 7

OIL STRAINER (SUPERCHARGER REAR HOUSING)

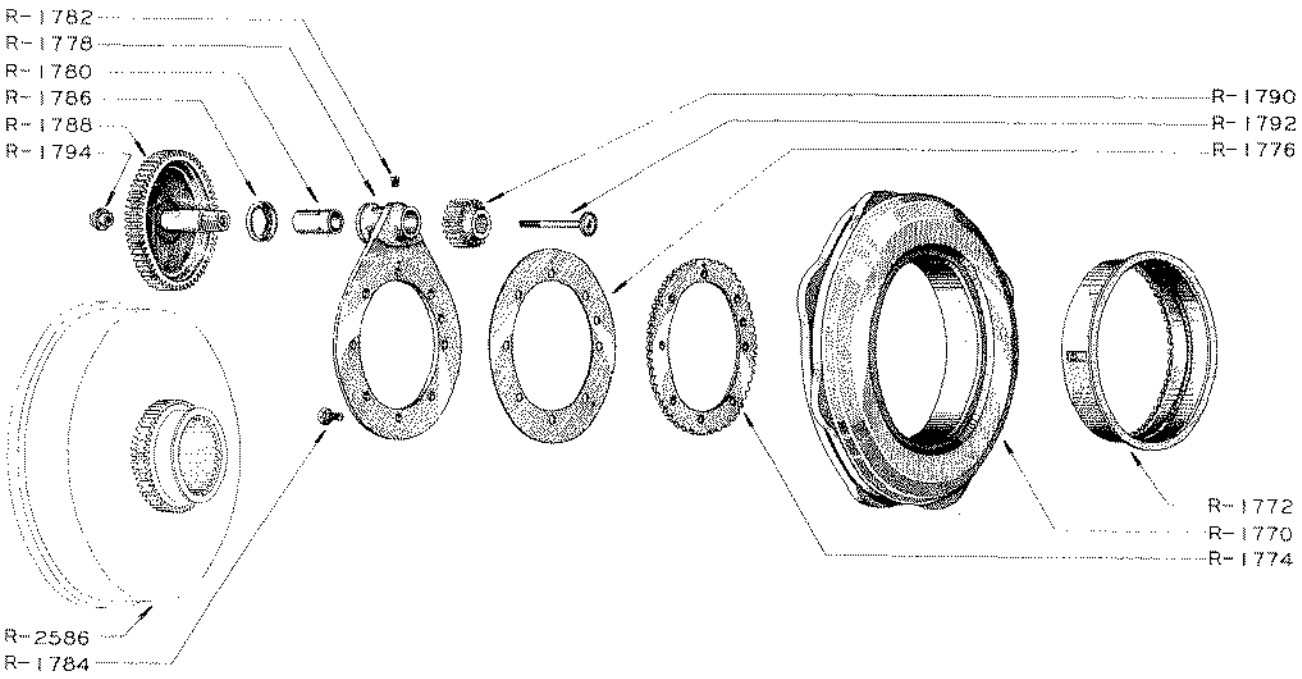


Figure 8

CAM AND CAM DRIVE

ILLUSTRATIONS - Cont'd

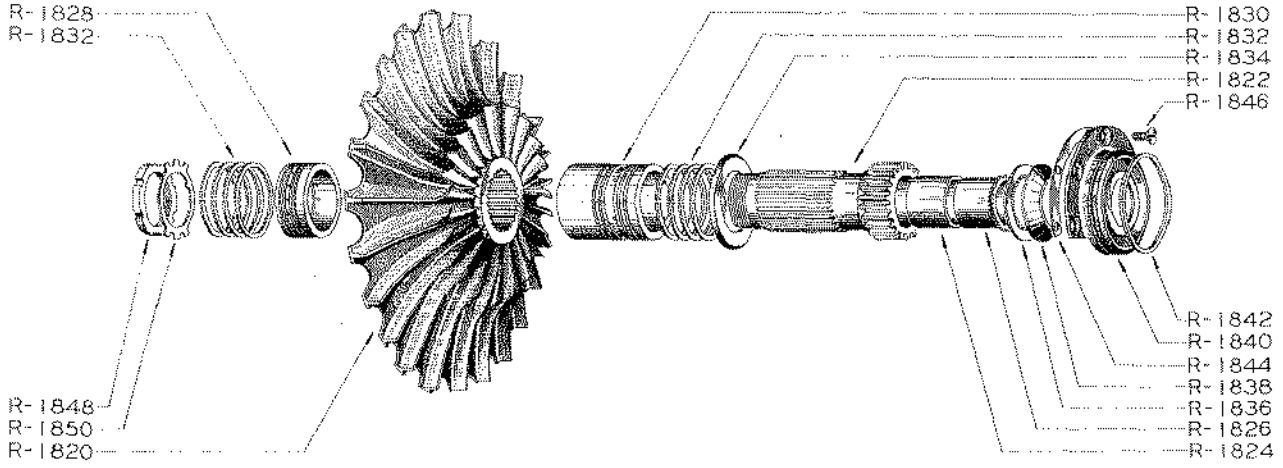


Figure 9

IMPELLER AND IMPELLER SHAFT

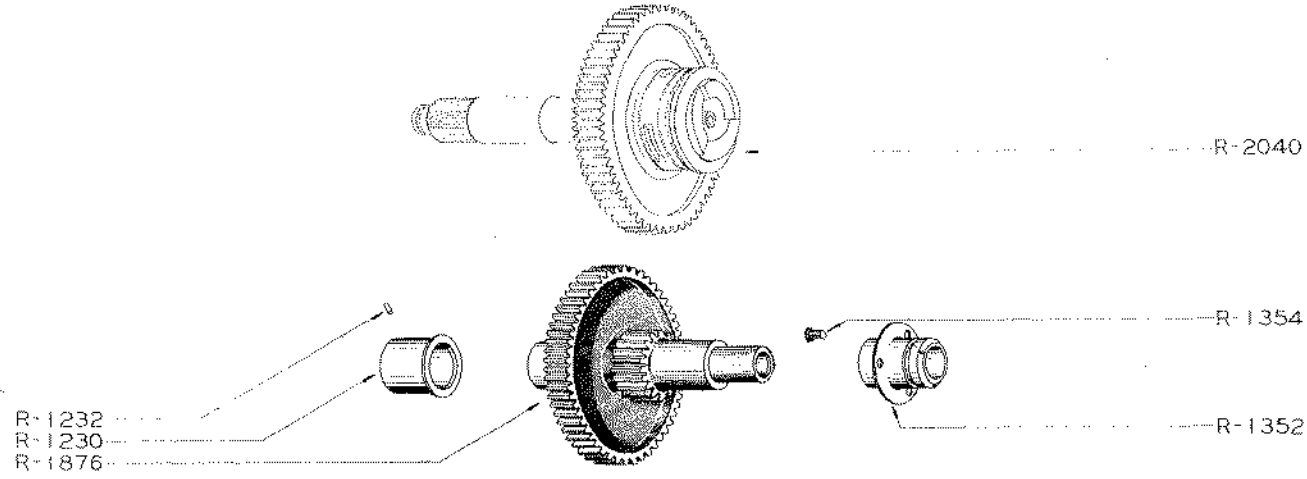


Figure 10

IMPELLER DRIVE (SINGLE SPEED)

ILLUSTRATIONS - Cont'd

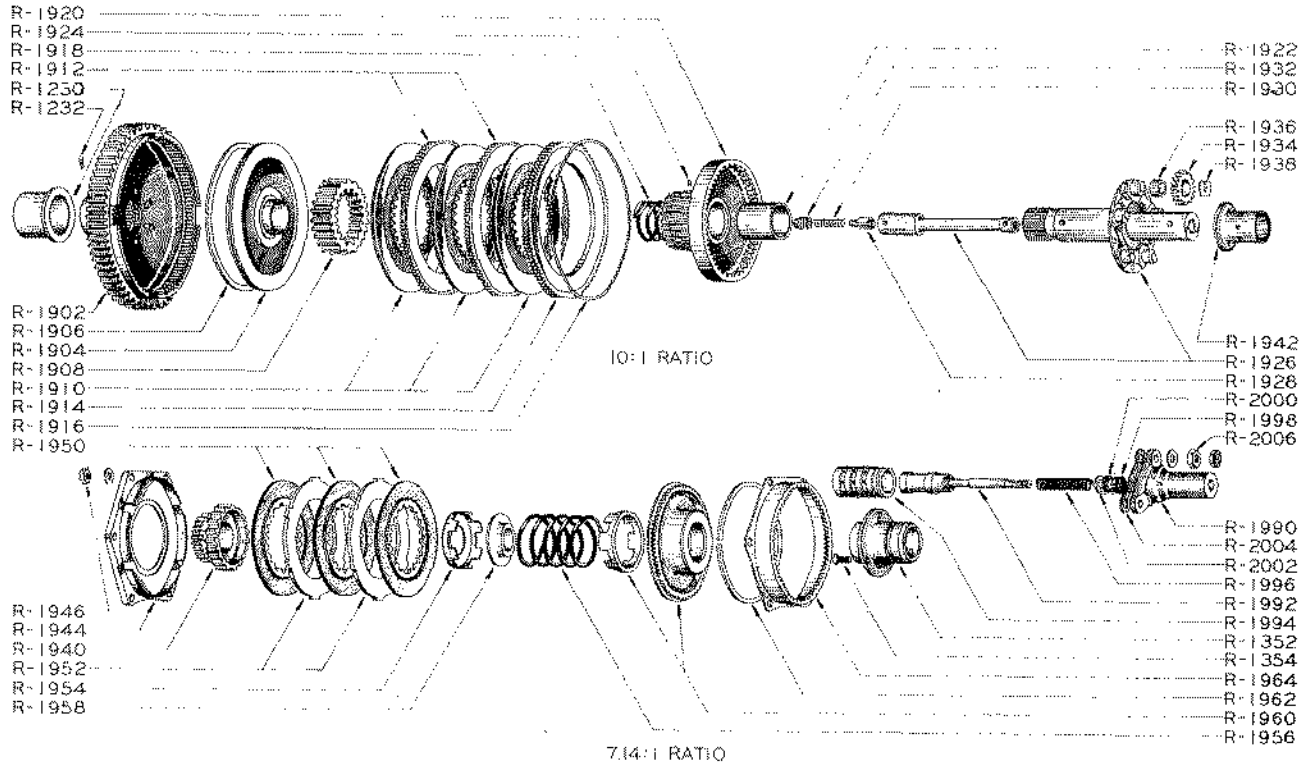


Figure 11

IMPELLER DRIVE (TWO SPEED)

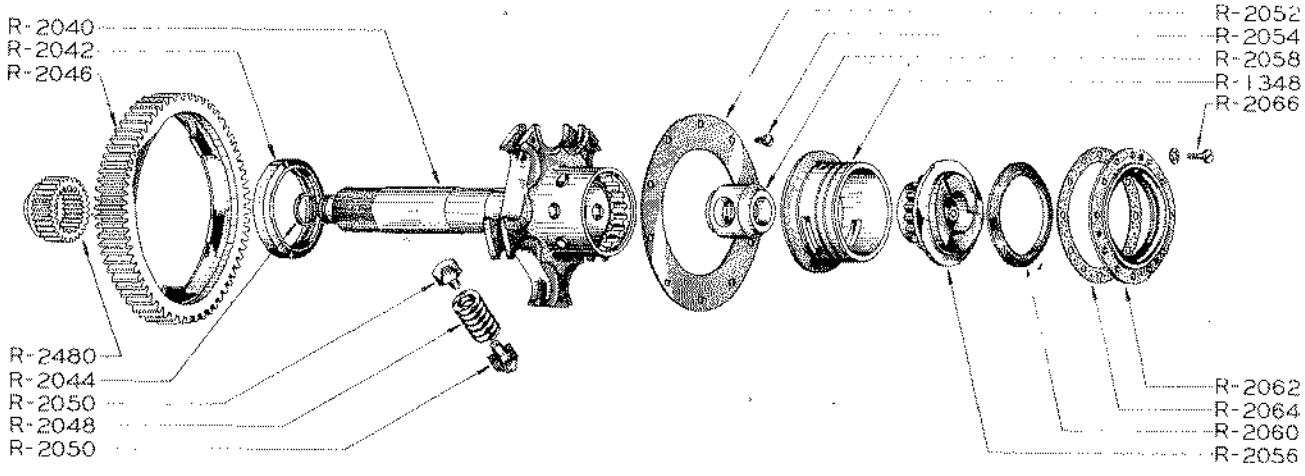


Figure 12

ACCESSORY DRIVE AND STARTER SHAFT

ILLUSTRATIONS - Cont'd

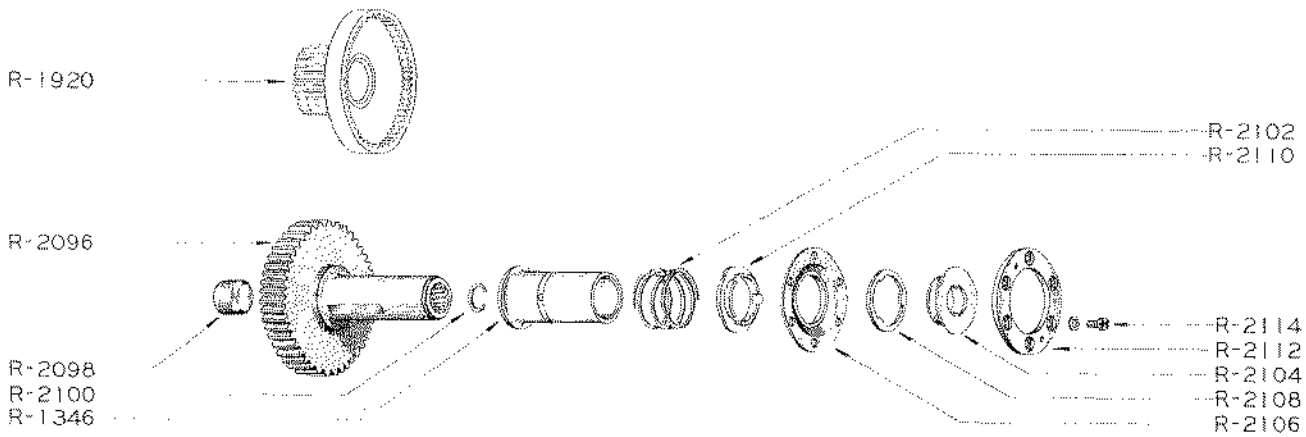


Figure 13

GENERATOR DRIVE

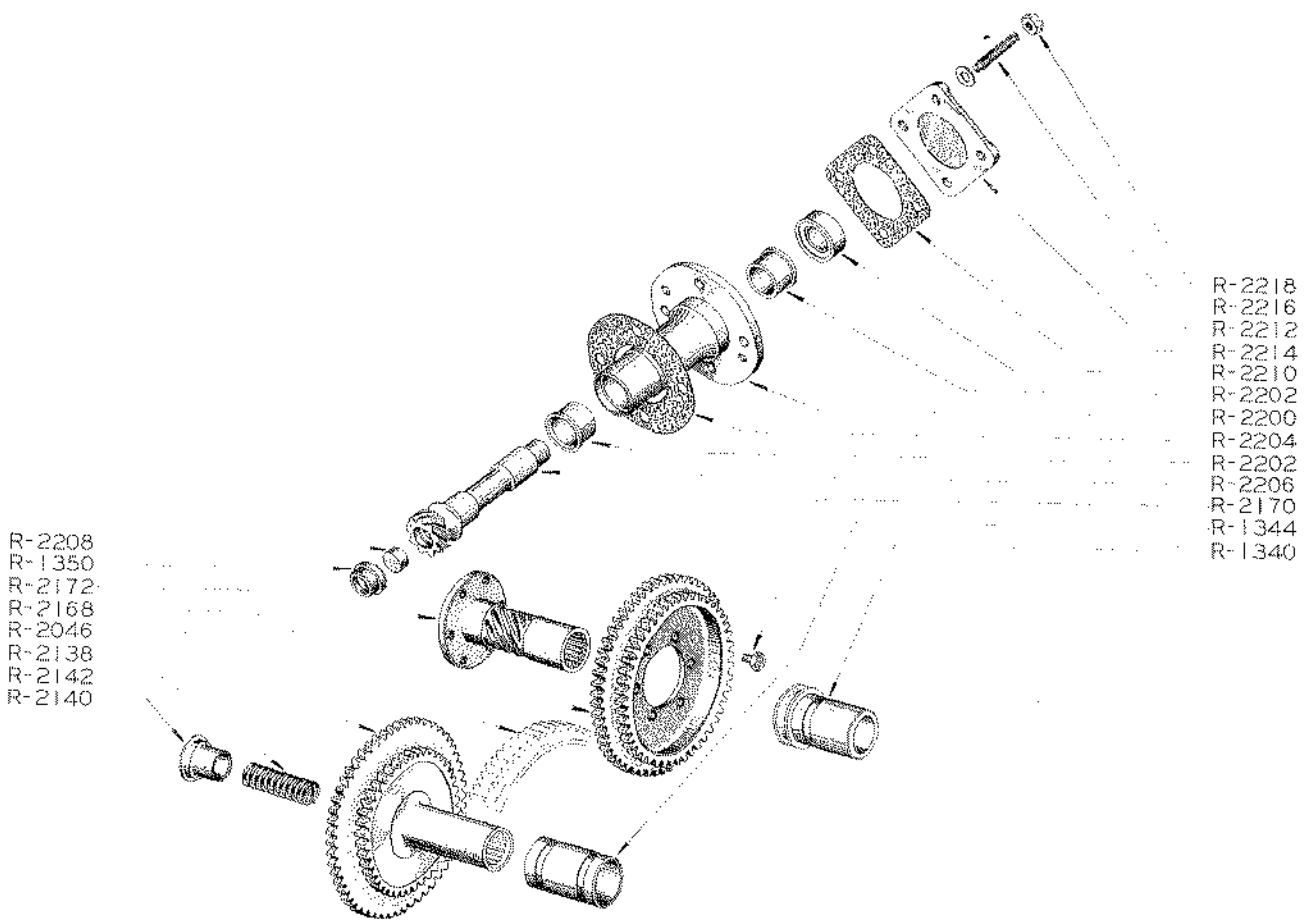


Figure 14

OIL PUMP AND FUEL PUMP DRIVES

ILLUSTRATIONS - Cont'd

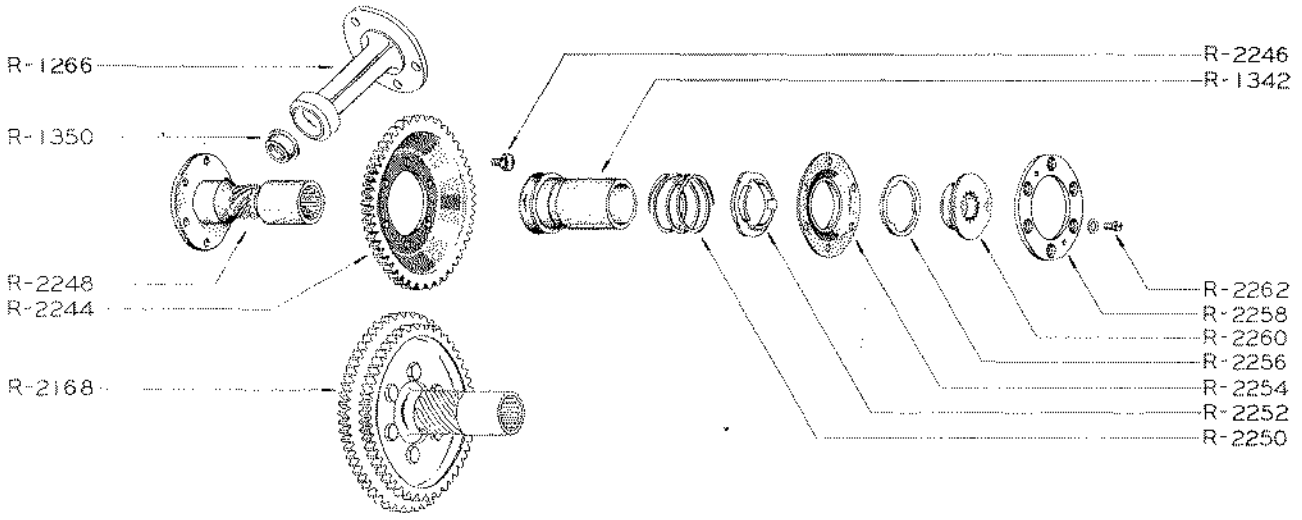


Figure 15

MAGNETO AND GUN SYNCHRONIZER IMPULSE GENERATOR DRIVES

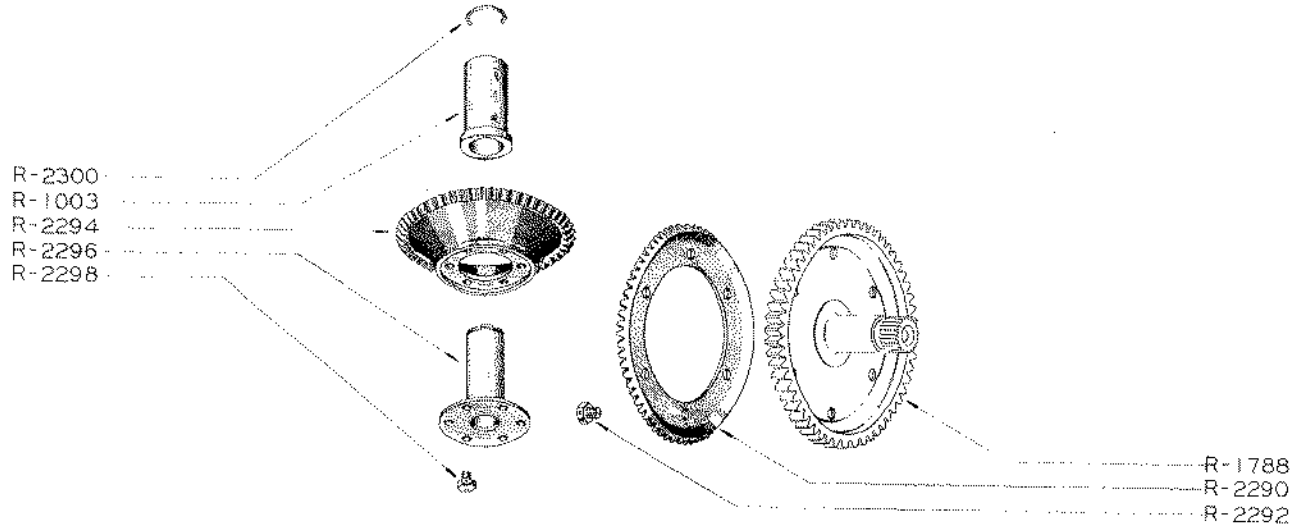


Figure 16

CONTROLLABLE PITCH PROPELLER GOVERNOR DRIVE

ILLUSTRATIONS - Cont'd

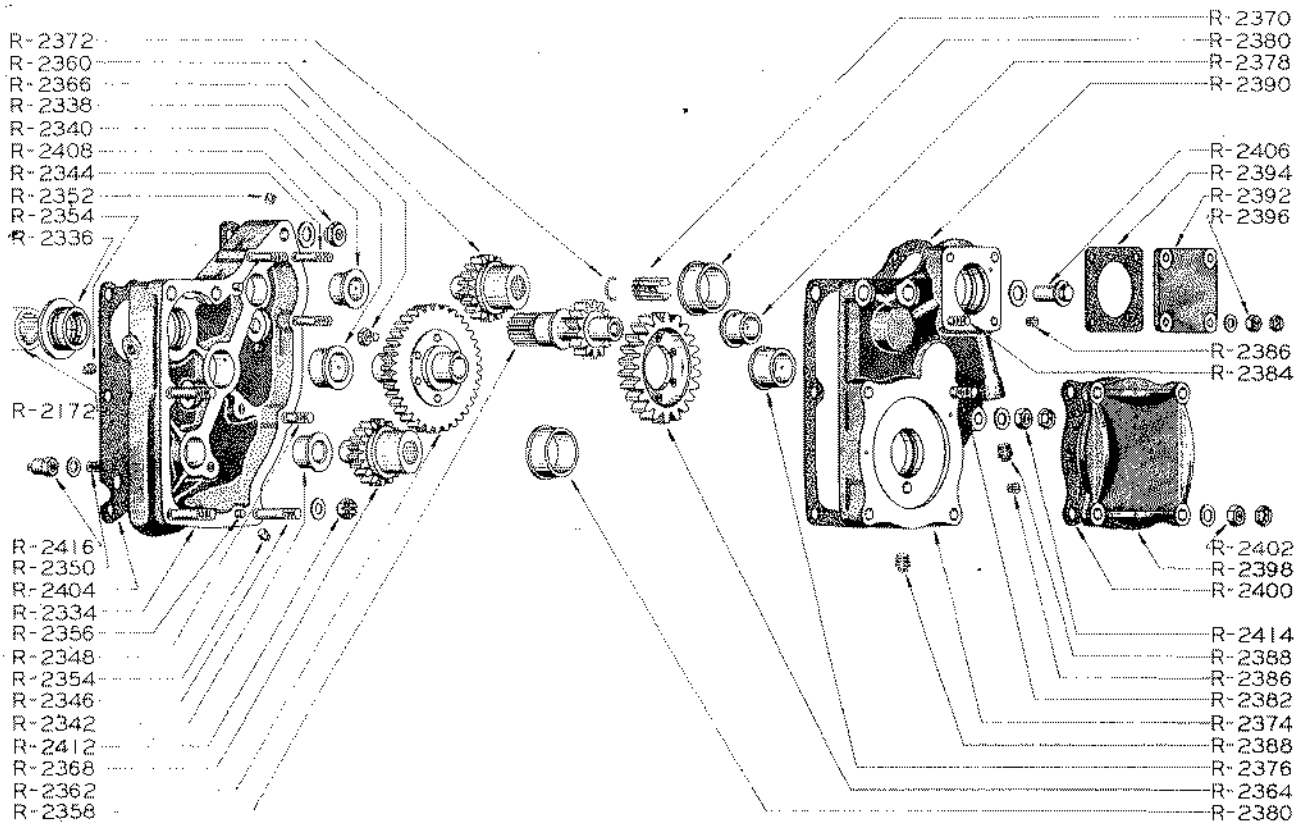


Figure 17

DUAL ACCESSORY DRIVE

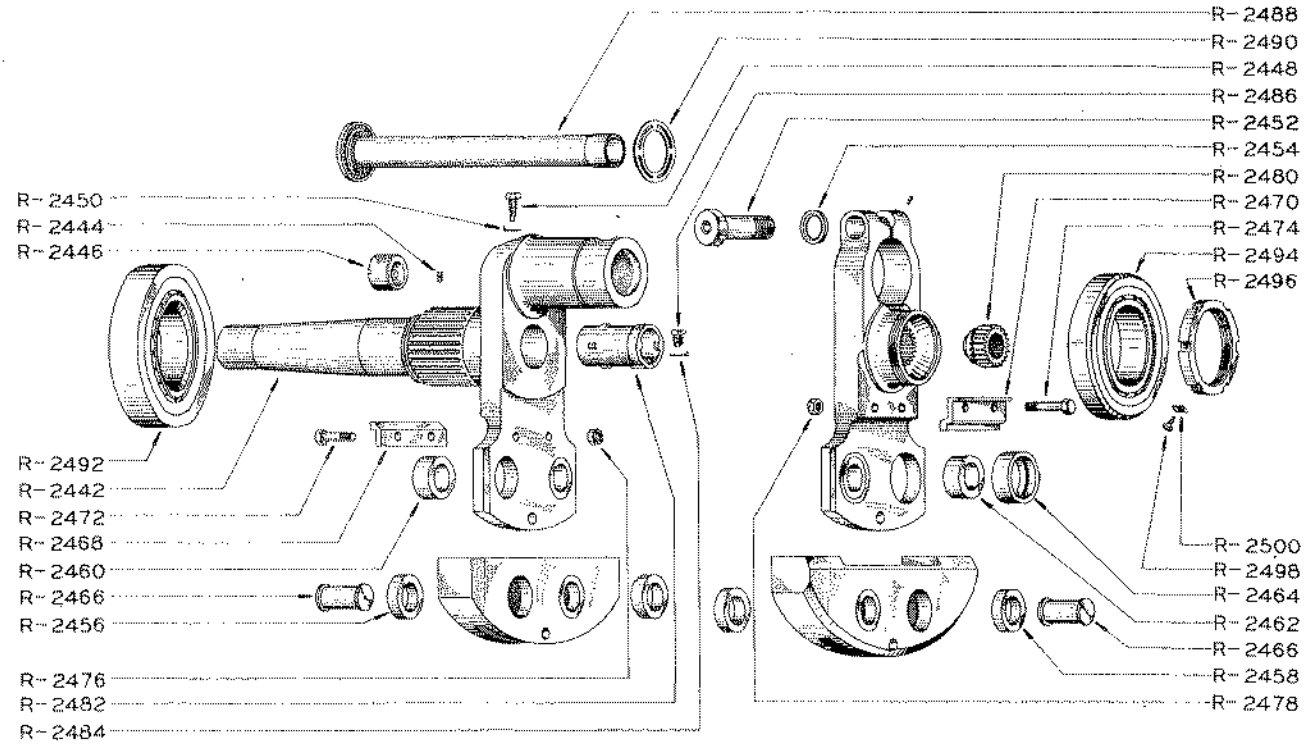


Figure 18

CRANKSHAFT

ILLUSTRATIONS - Cont'd

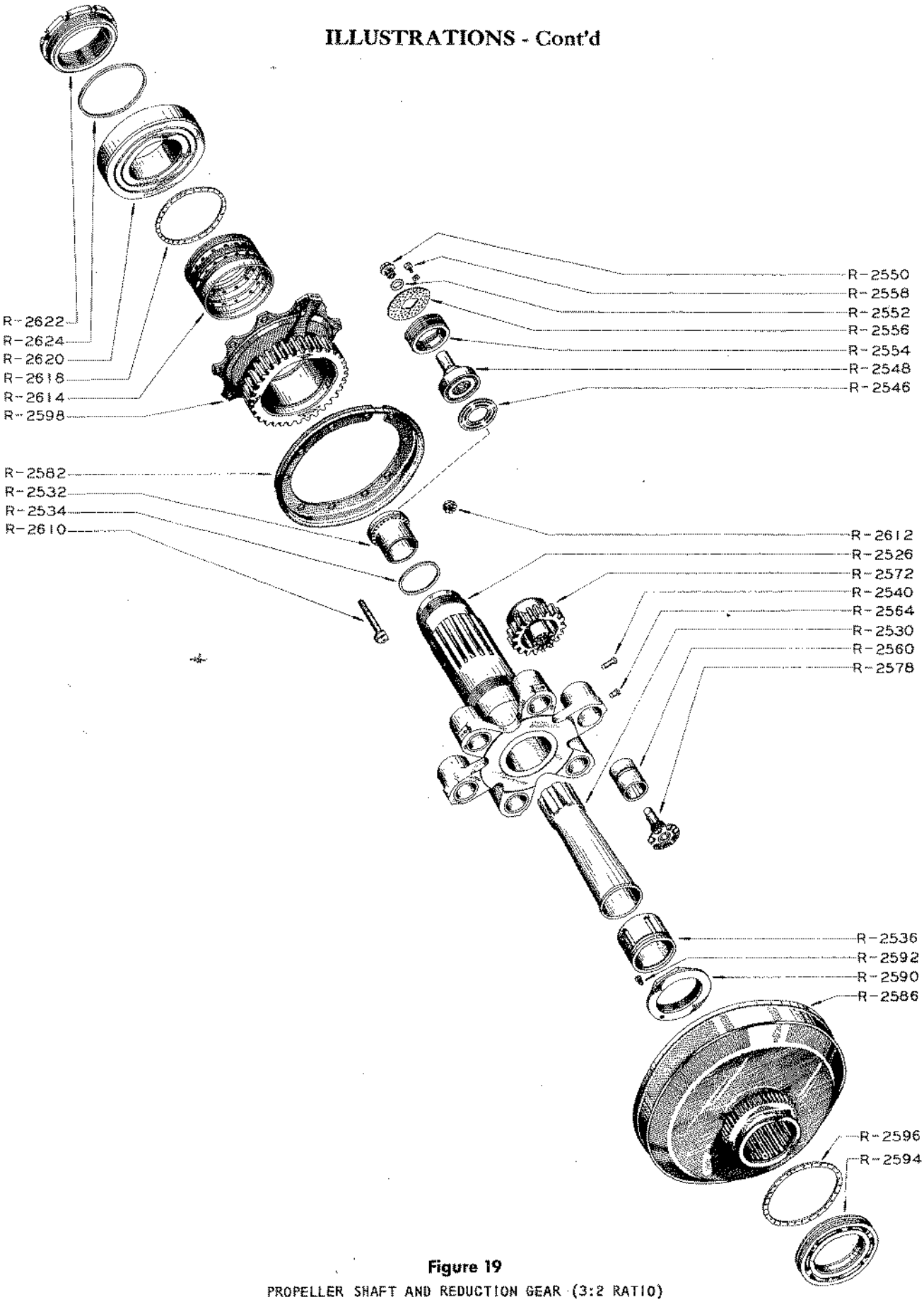


Figure 19

PROPELLER SHAFT AND REDUCTION GEAR (3:2 RATIO)

ILLUSTRATIONS - Cont'd

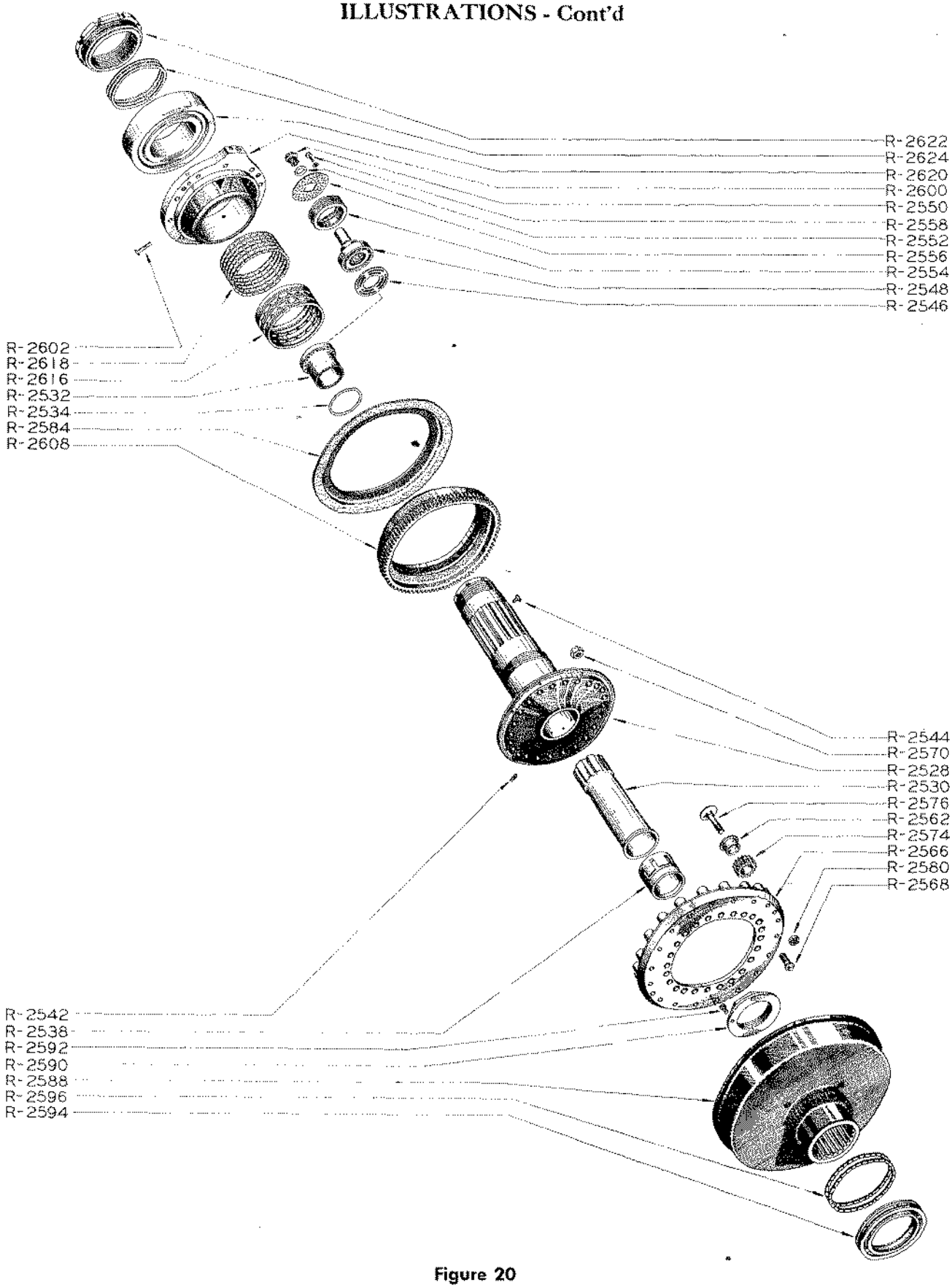


Figure 20

PROPELLER SHAFT AND REDUCTION GEAR (16:9 RATIO)

ILLUSTRATIONS - Cont'd

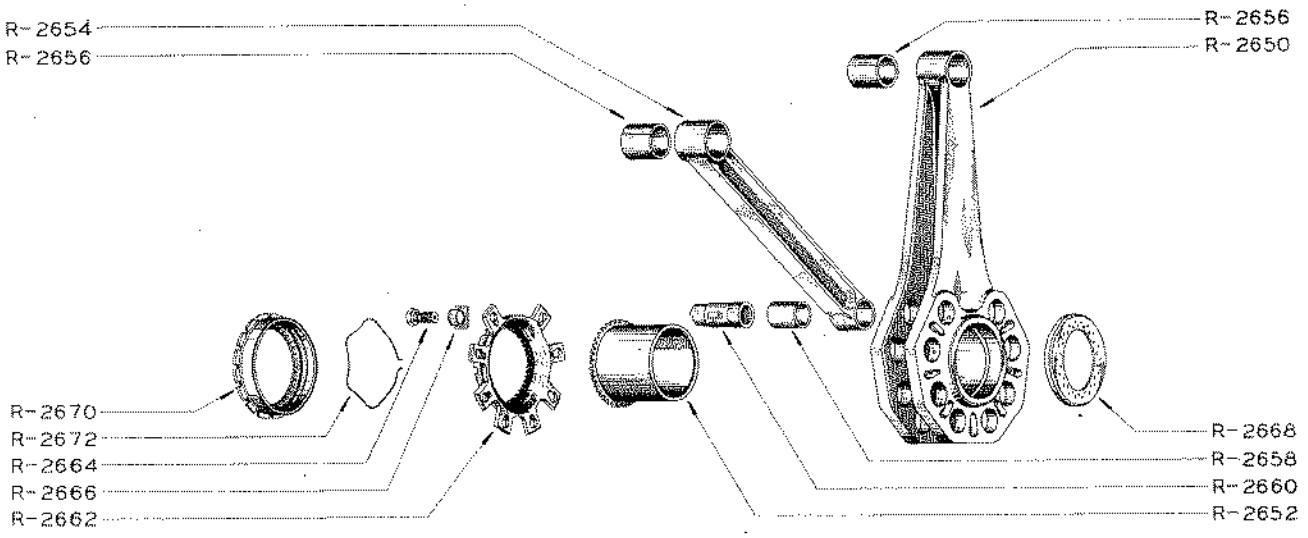


Figure 21

CONNECTING RODS

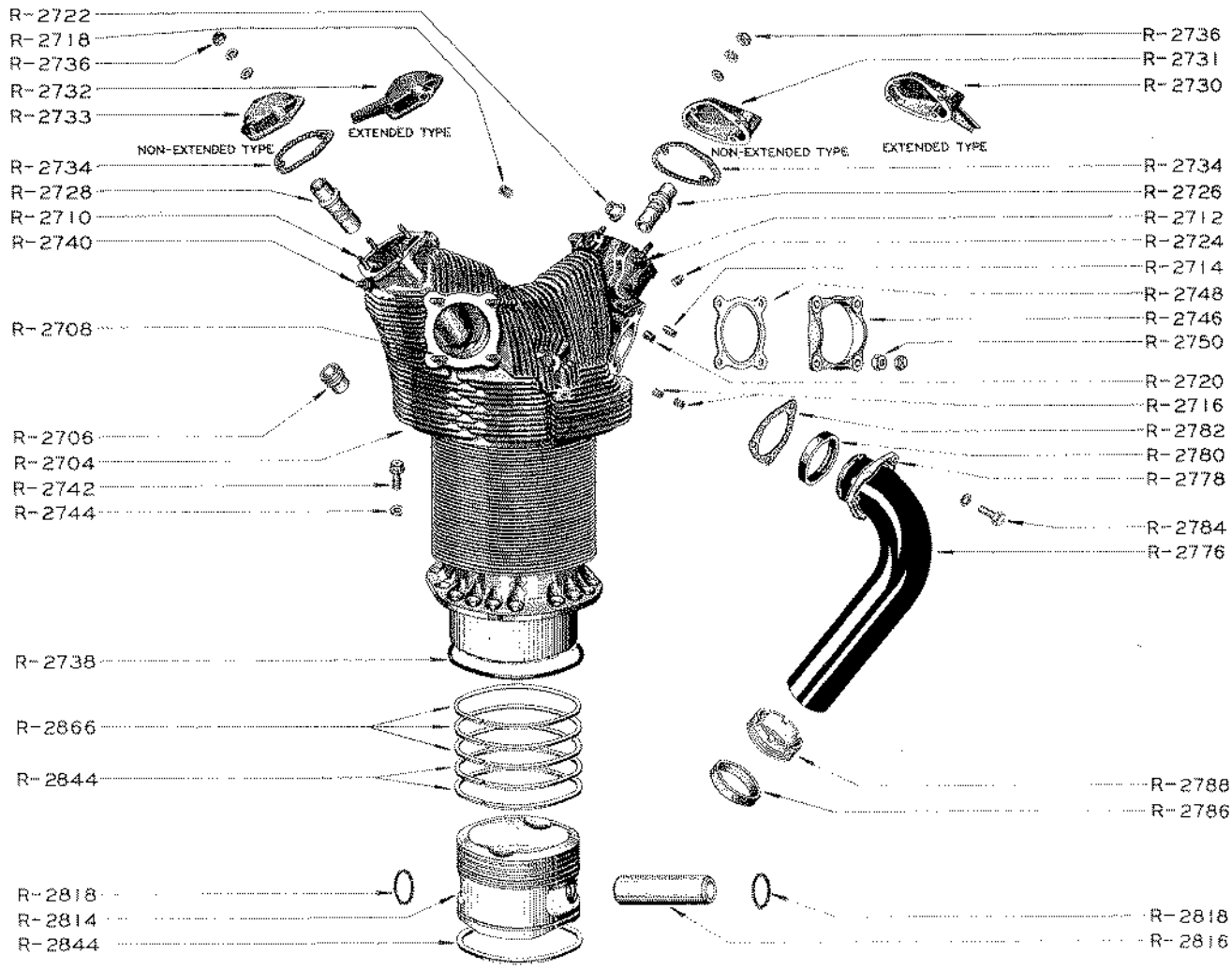


Figure 22

CYLINDER, INTAKE PIPE, PISTON AND PISTON RINGS

ILLUSTRATIONS - Cont'd

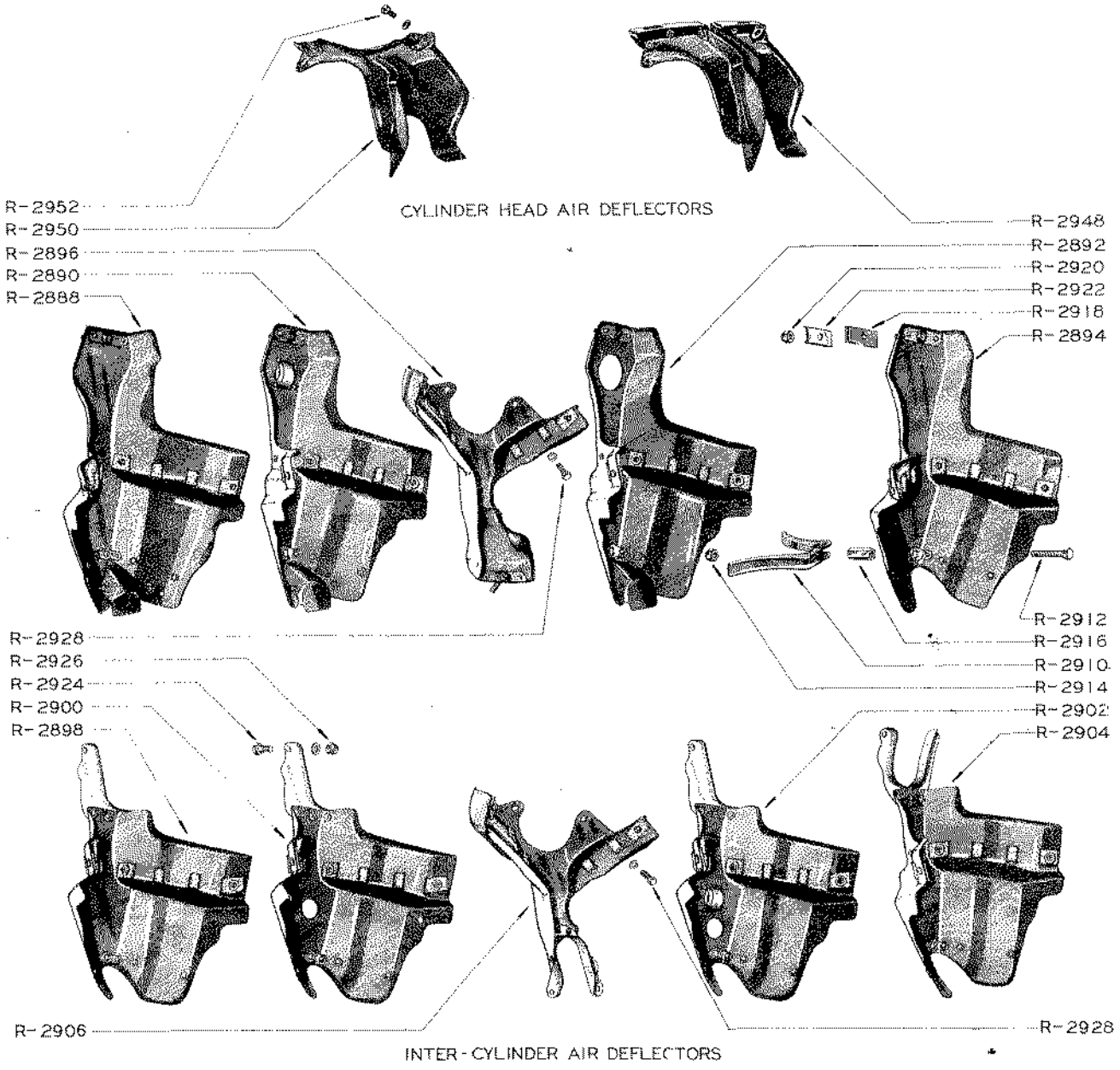


Figure 23

INTER-CYLINDER AND CYLINDER HEAD AIR DEFLECTORS

ILLUSTRATIONS - Cont'd

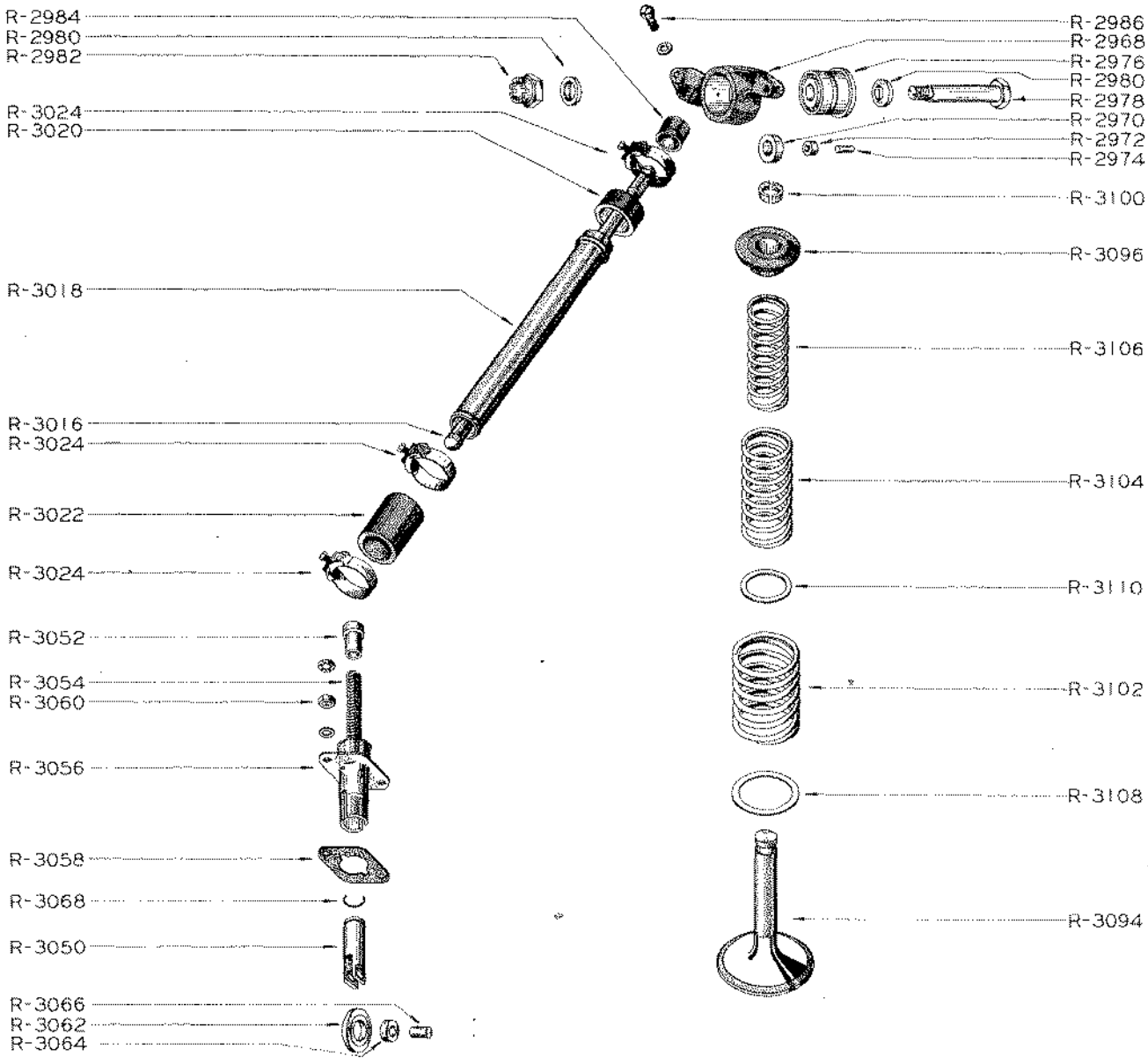


Figure 24

VALVE MECHANISM

ILLUSTRATIONS - Cont'd

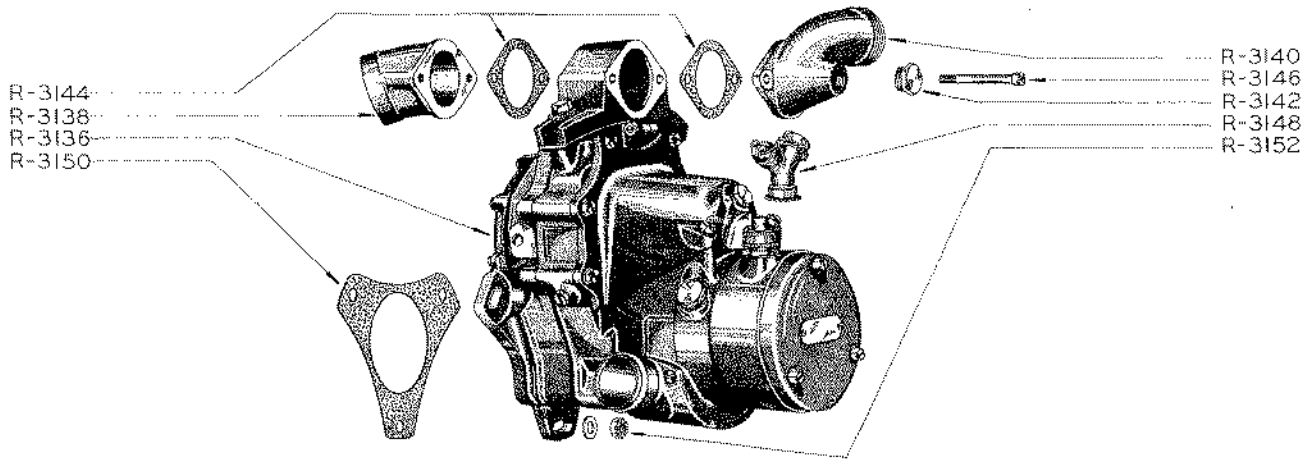


Figure 25

MAGNETO

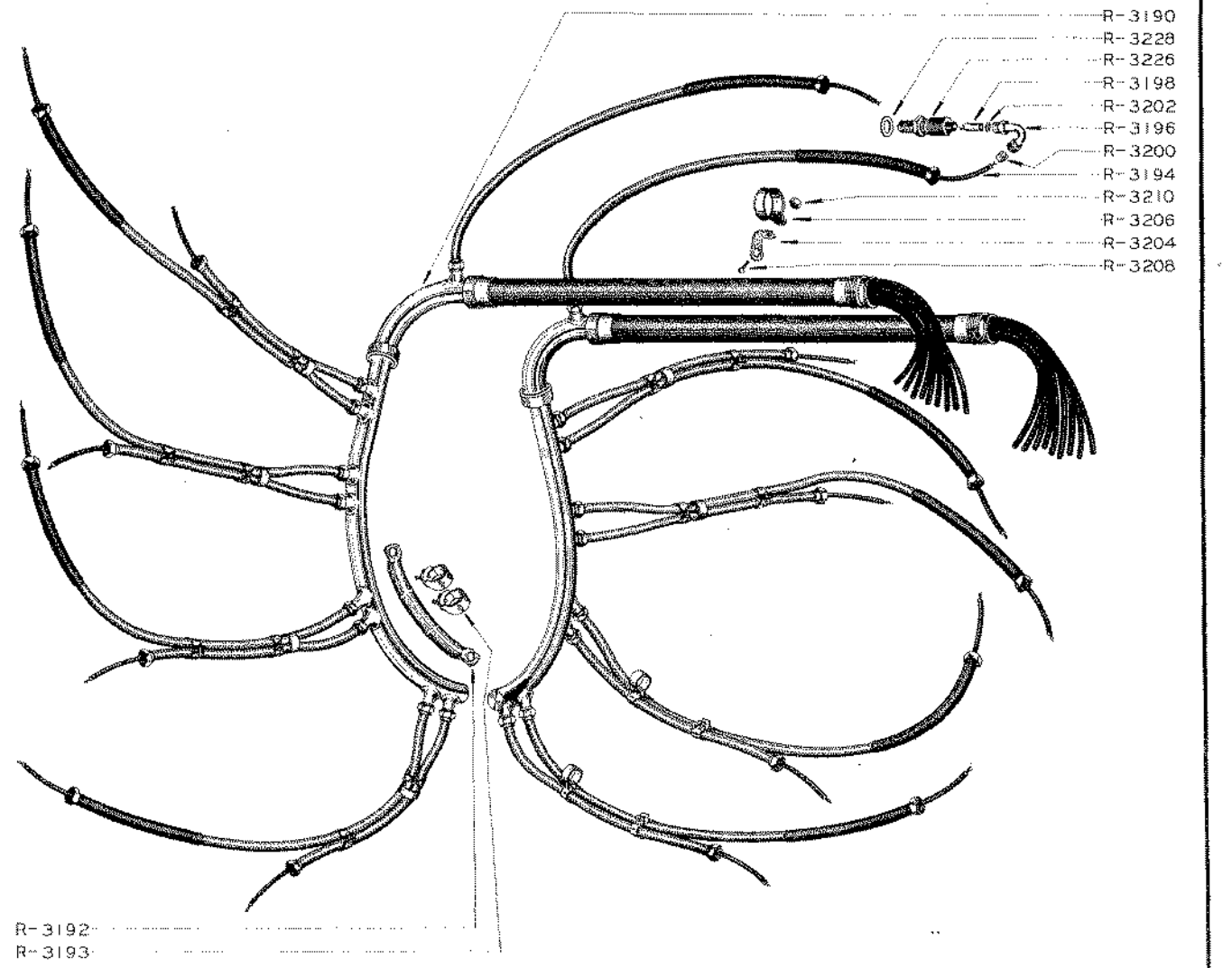


Figure 26

RADIO-SHIELDED WIRING HARNESS AND SPARK PLUG

ILLUSTRATIONS - Cont'd

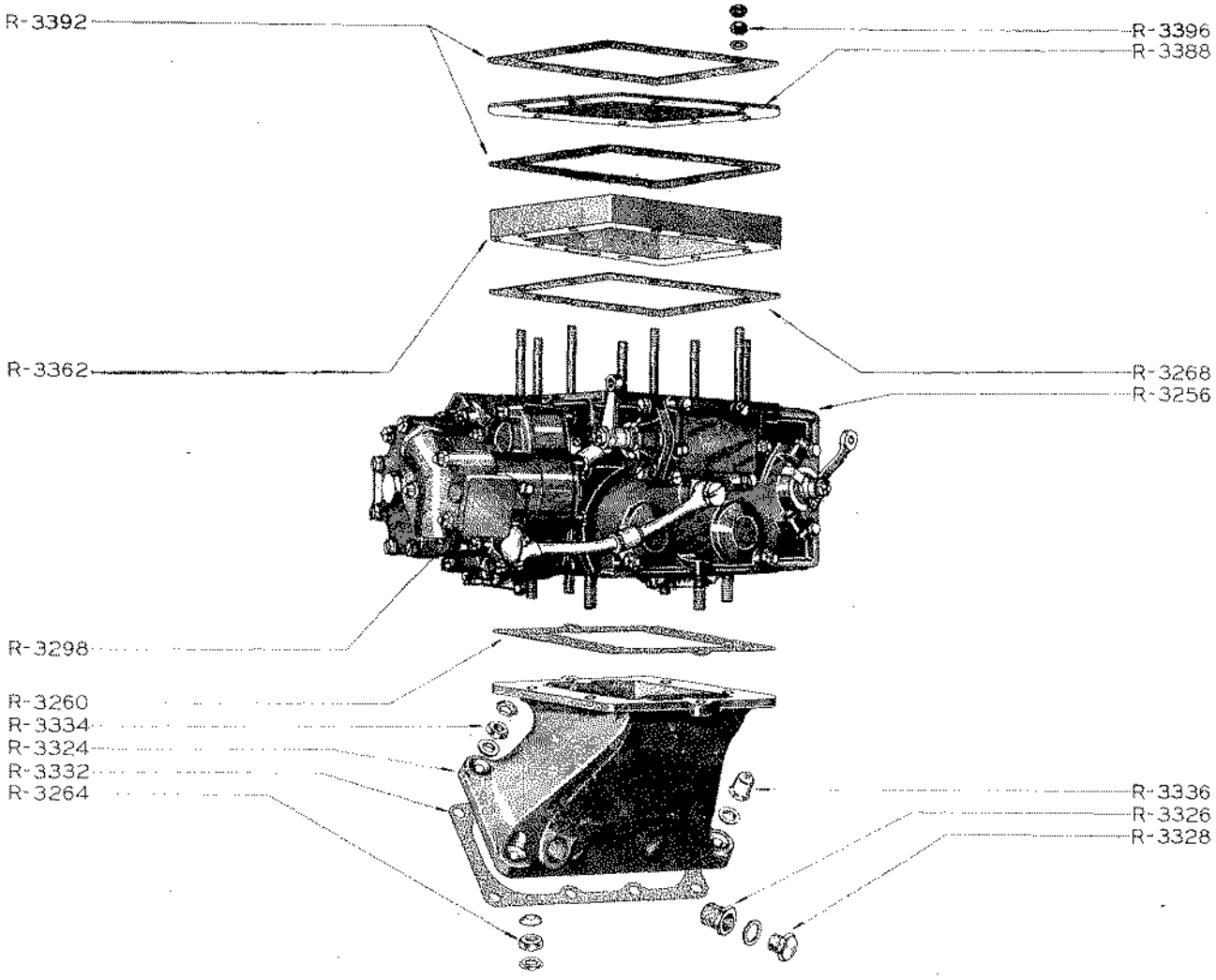


Figure 27

CARBURETOR AND ADAPTERS (HOLLEY)

ILLUSTRATIONS - Cont'd

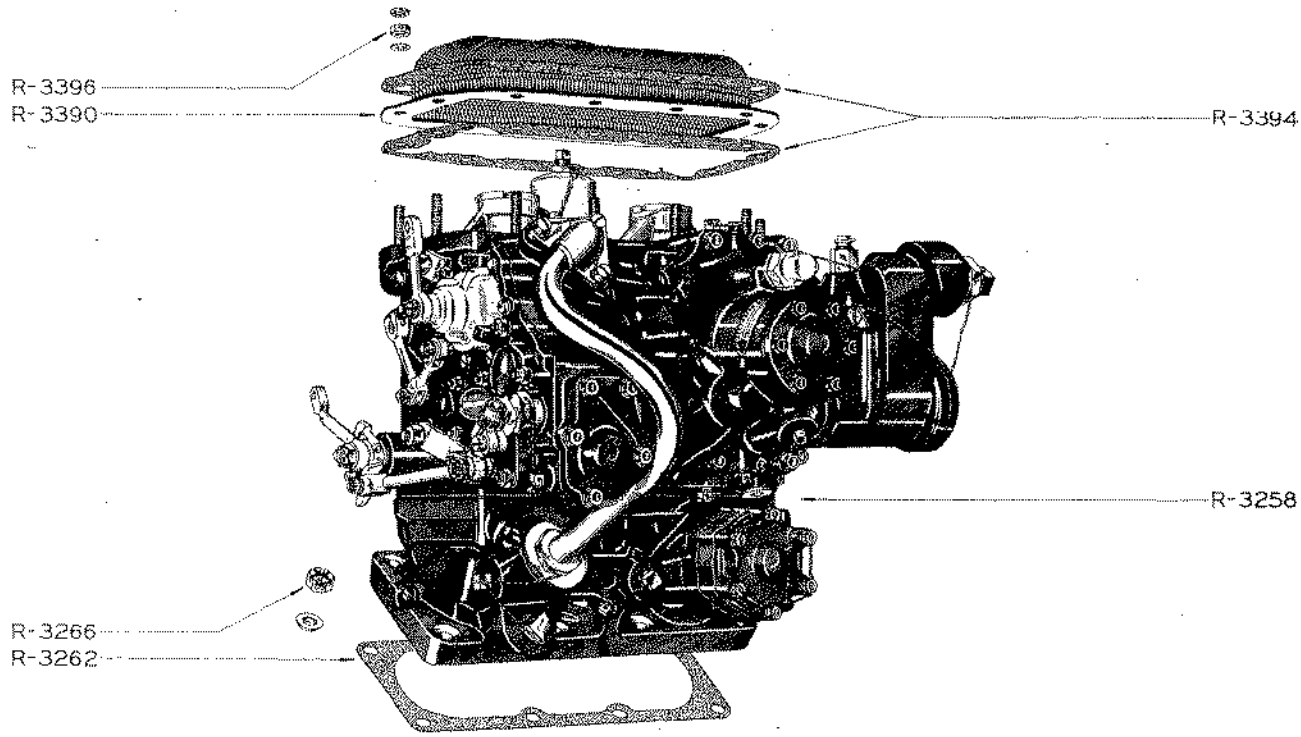


Figure 28

CARBURETOR AND ADAPTERS (BENDIX STROMBERG)

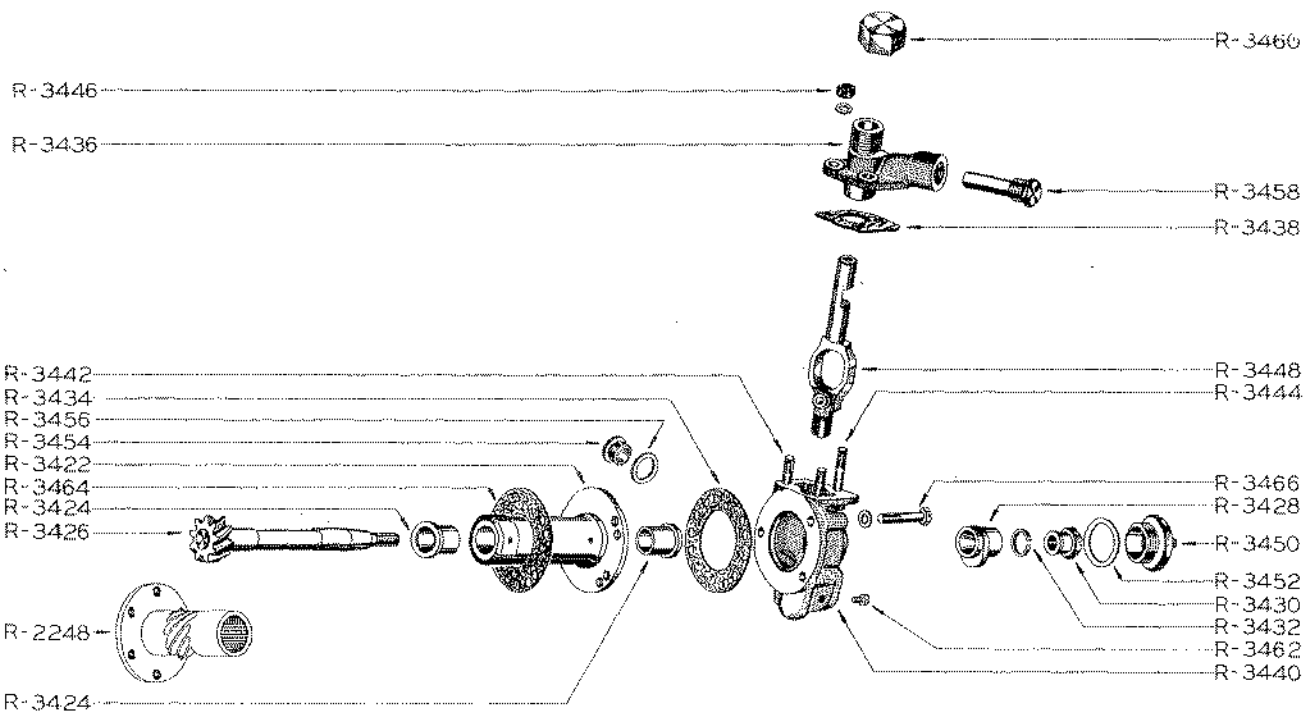


Figure 29

GUN SYNCHRONIZER IMPULSE GENERATOR

ILLUSTRATIONS - Cont'd

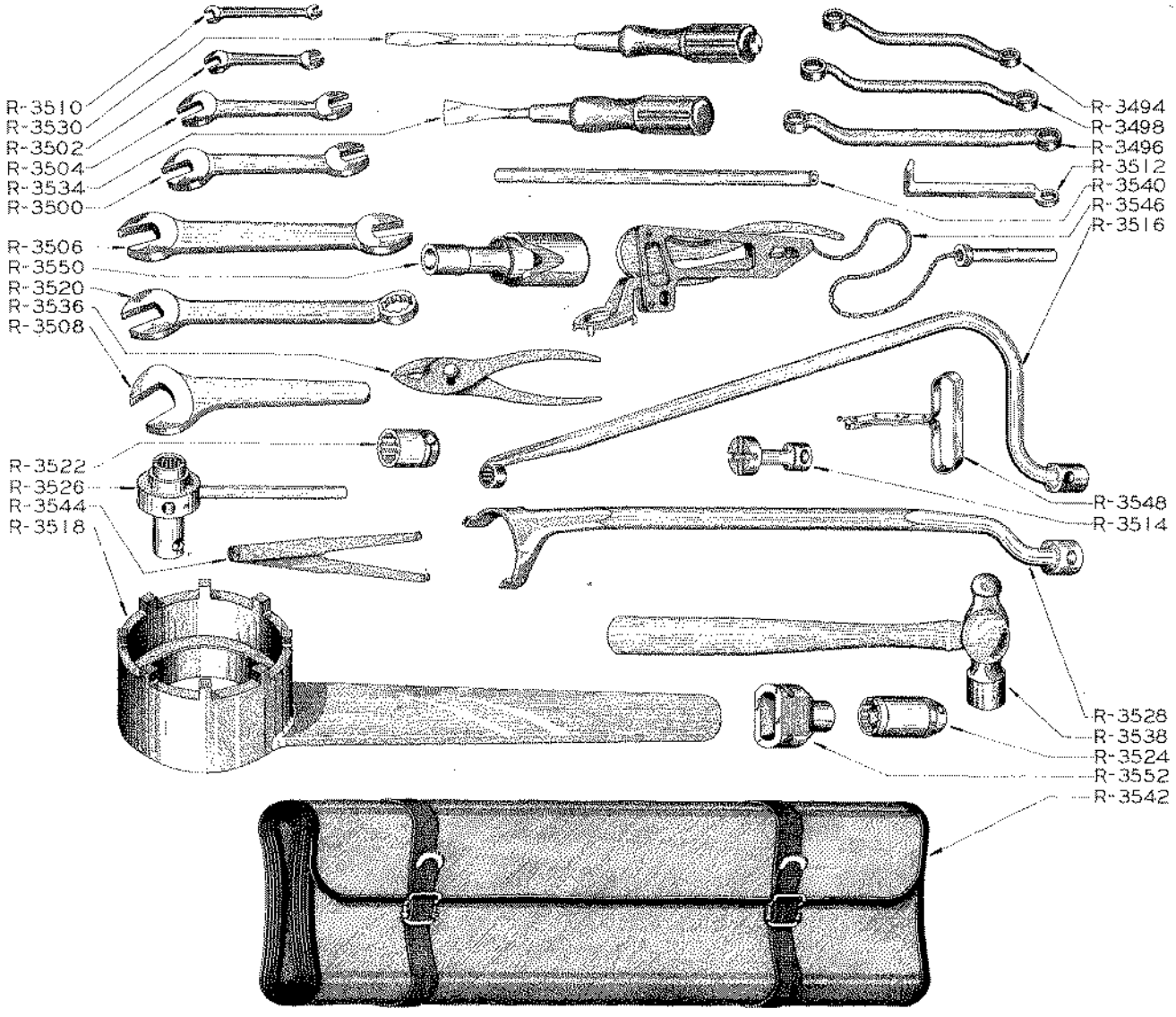
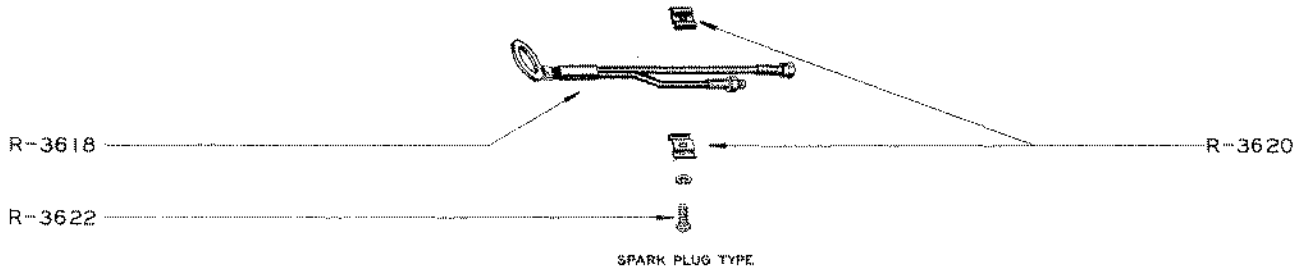


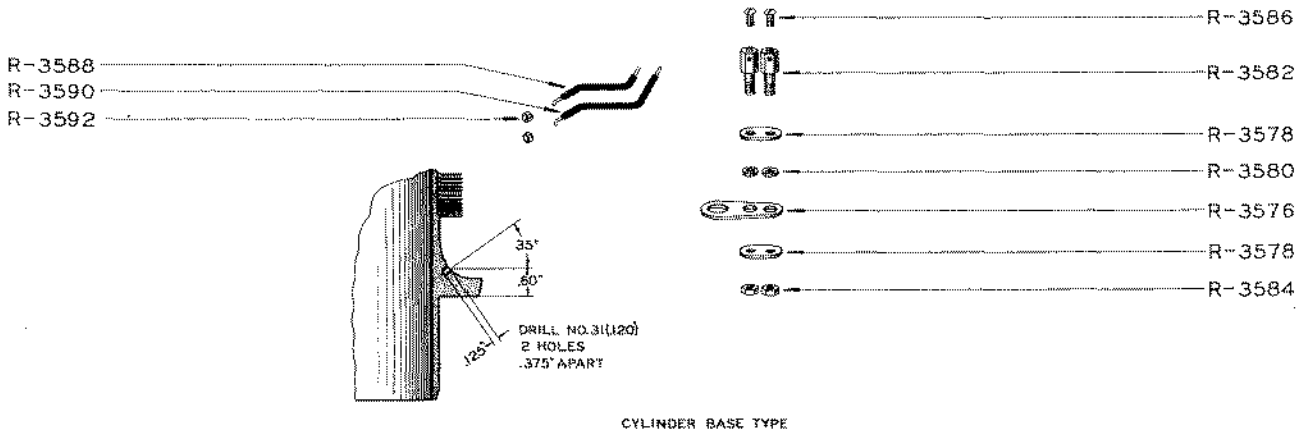
Figure 30

TOOL KIT

ILLUSTRATIONS - Cont'd



SPARK PLUG TYPE



CYLINDER BASE TYPE

Figure 31

THERMOCOUPLE

Code Word	Reference Number	Figure Number	Part Number	Description of Part	Number Used
				CRANKCASE	
				FRONT SECTION	
				The propeller shaft thrust bearing retainer is not supplied separately. If it becomes necessary to replace this part, return the front section to the Wright Aeronautical Corporation, Paterson, N.J., for repairs.	
GABAB	R-1001	1	411775	Crankcase - Front section.	1
				Used for the following 3:2 reduction geared engines: 27880, 28293, 28299 - 28304, 29343 - 29346, 29348, 29350 - 29374, 29395 - 29401, 29405 - 29407, 29441 - 29442, 31723 - 31850, 31881, 39626 - 39650, 39656 - 39657	
				This crankcase may be identified as having two front section flange attaching studs on the outside face of the propeller shaft bearing section and two stationary reduction gear attaching studs on the inside face. It also has two puller screw hole plugs.	
				Includes retainer, studs, bushing and plugs.	
GABBE			411792	Crankcase - Front section.	1
				Used for the following 16:9 reduction geared engines: 29347, 29402 - 29404	
				This crankcase is the same as 411775 listed above except it does not include the front section flange attaching studs, the stationary reduction gear attaching studs or the puller screw hole plugs.	
				Includes retainer, studs, bushings and plugs.	
GABCO	R-1003	16	64814	Bushing - Governor drive gear shaft.	1
GABDI	R-1005	1	118H2	Stud - Crankcase front section to valve tappet guide, .003" oversize (1/4" - 20 - 28 x 1 1/16")	36
GABEL	R-1005	1	118S2	Stud - Crankcase front section to valve tappet guide, .007" oversize (1/4" - 20 - 28 x 1 1/16")	36
GABGY	R-1005	1	118J2	Stud - Crankcase front section to valve tappet guide, .012" oversize (1/4" - 20 - 28 x 1 1/16")	36
GABHU	R-1007	1	2031H20	Stud - Crankcase front section to oil sump, .003" oversize (3/8" - 16 - 24 x 2 3/16")	3
GABIM	R-1007	1	2031S20	Stud - Crankcase front section to oil sump, .007" oversize (3/8" - 16 - 24 x 2 3/16")	3
GABOR	R-1007	1	2031J20	Stud - Crankcase front section to oil sump, .012" oversize (3/8" - 16 - 24 x 2 3/16")	3
GABSA	R-1009	1	2135H100	Stud - Crankcase front section to governor drive housing, .003" oversize (3/8" - 16 x 5/16" - 24 x 1 3/4"). . .	4
GABUK	R-1009	1	2135S100	Stud - Crankcase front section to governor drive housing, .007" oversize (3/8" - 16 x 5/16" - 24 x 1 3/4"). . .	4
GABWE	R-1009	1	2135J100	Stud - Crankcase front section to governor drive housing, .012" oversize (3/8" - 16 x 5/16" - 24 x 1 3/4"). . .	4
GABYD	R-1011	1	2032H7	Stud - Crankcase front section to stationary reduction gear, .003" oversize (3/8" - 16 - 24 x 1 1/2"). . . .	2
				Used for 3:2 reduction geared engines.	
GACAM	R-1011	1	2032S7	Stud - Crankcase front section to stationary reduction gear, .007" oversize (3/8" - 16 - 24 x 1 1/2"). . . .	2
				Used for 3:2 reduction geared engines.	
GACBO	R-1011	1	2032J7	Stud - Crankcase front section to stationary reduction gear, .012" oversize (3/8" - 16 - 24 x 1 1/2"). . . .	2
				Used for 3:2 reduction geared engines.	
GACDI	R-1013	1	126H145	Stud - Crankcase front section to front section flange, .003" oversize (7/16" - 14 x 3/8" - 24 x 2 1/16") . .	2
				Used for 3:2 reduction geared engines.	
GACER	R-1013	1	126S145	Stud - Crankcase front section to front section flange, .007" oversize (7/16" - 14 x 3/8" - 24 x 2 1/16") . .	2
				Used for 3:2 reduction geared engines.	
GACFY	R-1013	1	126J145	Stud - Crankcase front section to front section flange, .012" oversize (7/16" - 14 x 3/8" - 24 x 2 1/16") . .	2
				Used for 3:2 reduction geared engines.	
GACGA	R-1015	1	2105D1	Plug - Crankcase front section governor oil line, pipe, square head (1/8").	1
GACHU	R-1017	1	2105D2	Plug - Crankcase front section governor oil line, pipe, square head (1/4").	1
GACIN	R-1019	1	2142D1	Plug - Crankcase front section governor oil line, pipe, headless (1/8")	1
GACKL	R-1021	1	2142D2	Plug - Crankcase front section governor oil line, pipe, headless (1/4")	1

CRANKCASE - Cont'd

Code Word	Reference Number	Figure Number	Part Number	Description of Part	Number Used
				FRONT SECTION - Cont'd	
GACME	R-1023	1	2125D3	Plug - Crankcase front section puller screw hole, slotted (3/8" - 24)	2
				Used for 3:2 reduction geared engines.	
GACOG			27D67	Gasket - Crankcase front section puller screw hole plug. .	2
				Used for 3:2 reduction geared engines.	
GACUD	R-1025	1	2126D1	Plug - Crankcase front section oil drain (5/8" - 18) . . .	2
GACYK			23D16	Gasket - Crankcase front section oil drain plug.	2
GADAL	R-1027	1	70D3	Pin - Crankcase front section to crankcase main section, dowel (3/8" x 3/4")	1
GADBY	R-1029	1	69222	Ring - Crankcase front section to crankcase main section oil seal.	1
				Used for 3:2 reduction geared engines.	
				This ring has a "T" shaped cross-section and is assembled in a channel of the crankcase front section so that the head of the "T" forms a seal against the crankcase main section.	
GADCO	R-1031	1	111370	Flange - Crankcase front section	1
GADDI	R-1033	1	63997	Spacer - Crankcase front section flange.	1
GADET	R-1035	1	63998	Gasket - Crankcase front section flange.	1
GADIG	R-1037	1	29730	Circlet - Crankcase front section flange bolt.	8
				Used for 3:2 reduction geared engines.	
GADKU			34D14	Washer - Crankcase front section flange (25/64" x 3/4" x 5/64").	10
GADOV	R-1039	1	1D91	Nut - Crankcase front section flange (3/8" - 24)	10
				Used for 3:2 reduction geared engines.	
GADUC			45D28	Screw - Crankcase front section thru stationary reduction gear (5/16" - 24 x 2 17/32").	2
				Used for 16:9 reduction geared engines.	
GADYP			27D76	Washer - Crankcase front section thru stationary reduction gear screw (21/64" x 5/8" x 1/32").	2
				Used for 16:9 reduction geared engines.	
GAEAR			2057D17	Screw - Crankcase front section flange spacer thru crankcase front section and stationary reduction gear support to stationary reduction gear (3/8" - 24 x 3 3/8")	10
				Used for 16:9 reduction geared engines.	
GAEBO	R-1041	1	2045D22	Screw - Crankcase front section to main section, long (7/10" - 20 x 2 1/2")	8
GAECA	R-1043	1	2045D21	Screw - Crankcase front section to main section, short (7/16" - 20 x 1 1/2")	8
GAEEZ			34D16	Washer - Crankcase front section to main section screw (29/64" x 7/8" x 3/32")	16
GAEFI	R-1045	1	93D16	Plug - Crankcase front section timing hole (1 1/8" - 18) .	1
GAEGU	R-1047	1	23D2	Gasket - Crankcase front section timing hole plug (1 1/8" x 1 3/8" x 3/32")	1
				MAIN SECTION	
				The main section rear bearing ring is not supplied separately. It is shrunk into the main section and then ground to size. If it becomes necessary to replace the bearing ring, return the main section to the Wright Aeronautical Corporation, Paterson, N.J., for repairs.	
				Front or rear halves of the main section are not supplied separately.	
GAFHA	R-1074	2	412717	Crankcase - Main section	1
				Includes front and rear halves and rear bearing ring.	
GAFIG	R-1076	2	2045D19	Screw - Crankcase main front section to main rear section (7/16" - 20 x 1 13/32")	9
GAFKY			34D131	Washer - Crankcase main front section to main rear section (29/64" x 3/4" x 3/32")	9
GAFME	R-1078	2	2101D8	Nut - Crankcase main front section to main rear section (7/16" - 20).	9
GAFOB	R-1080	2	2037D21	Pin - Crankcase main front section cam bracket locating (5/16" x 7/16")	1
GAFRI	R-1082	2	68409	Ring - Crankcase main section front bearing.	1
GAFUZ	R-1084	2	68332	Dowel - Crankcase main section hollow.	6
GAFYT	R-1086	2	2083D1	Ring - Crankcase main section hollow dowel oil seal. . . .	6
GAGAL	R-1088	2	68415	Ring - Crankcase main section to crankcase front section and supercharger front housing oil seal	2
GAGBI			112354	Packing - Crankcase main front section to main rear section oil seal.	9

CRANKCASE - Cont'd

Code Word	Reference Number	Figure Number	Part Number	Description of Part	Number Used
				SUPERCHARGER FRONT HOUSING	
GAHBO	R-1114	3	411811	Housing - Supercharger front	1
				Includes studs, impeller shaft support and breather relief valve.	
GAHCI	R-1116	3	2031H12	Stud - Supercharger front housing to supercharger rear housing, short, .003" oversize (3/8" - 16 - 24 x 1 3/4")	19
GAHDY	R-1116	3	2031S12	Stud - Supercharger front housing to supercharger rear housing, short, .007" oversize (3/8" - 16 - 24 x 1 3/4")	19
GAHEN	R-1116	3	2031J12	Stud - Supercharger front housing to supercharger rear housing, short, .012" oversize (3/8" - 16 - 24 x 1 3/4")	19
GAHGU	R-1118	3	2031H19	Stud - Supercharger front housing to supercharger rear housing, long, .003" oversize (3/8" - 16 - 24 x 2 1/8")	2
GAHIK	R-1118	3	2031S19	Stud - Supercharger front housing to supercharger rear housing, long, .007" oversize (3/8" - 16 - 24 x 2 1/8")	2
GAHOM	R-1118	3	2031J19	Stud - Supercharger front housing to supercharger rear housing, long, .012" oversize (3/8" - 16 - 24 x 2 1/8")	2
GAHUL	R-1120	3	2031H20	Stud - Supercharger front housing to oil sump, .003" oversize (3/8" - 16 - 24 x 2 3/16")	4
GAHYP	R-1120	3	2031S20	Stud - Supercharger front housing to oil sump, .007" oversize (3/8" - 16 - 24 x 2 3/16")	4
GAIBA	R-1120	3	2031J20	Stud - Supercharger front housing to oil sump, .012" oversize (3/8" - 16 - 24 x 2 3/16")	4
GAICU	R-1122	3	2031H22	Stud - Supercharger front housing to breather or breather substituting cover, .003" oversize (3/8" - 16 - 24 x 1 13/16")	2
GAIDY	R-1122	3	2031S22	Stud - Supercharger front housing to breather or breather substituting cover, .007" oversize (3/8" - 16 - 24 x 1 13/16")	2
GAIFE	R-1122	3	2031J22	Stud - Supercharger front housing to breather or breather substituting cover, .012" oversize (3/8" - 16 - 24 x 1 13/16")	2
GAIGI	R-1124	3	68364	Support - Impeller shaft bearing	1
GAIKO	R-1126	3	68366	Gasket - Impeller shaft bearing support.	1
GAIRS	R-1128	3	68365	Ring - Impeller shaft bearing support.	1
GAIUD	R-1130	3	56D10	Screw - Impeller shaft bearing support to supercharger front housing (1/4" - 28 x 31/64").	8
GAJAB			411736	Valve - Supercharger front housing breather relief, assembly.	1
				Includes pin, seat, stem and spring.	
GAJEK	R-1132	3	68421	Valve - Supercharger front housing breather relief	1
GAJIM	R-1134	3	68422	Seat - Supercharger front housing breather relief valve. .	1
GAJOP	R-1136	3	68423	Stem - Supercharger front housing breather relief valve. .	1
GAJUL	R-1138	3	2130D1	Pin - Supercharger front housing breather relief valve stem, taper (#00000 x 5/8")	1
GAJYT	R-1140	3	68424	Spring - Supercharger front housing breather relief valve.	1
GAKAC	R-1142	3	2126D5	Plug - Supercharger front housing oil drain (1 1/8" - 16).	1
GAKBO	R-1144	3	23D2	Gasket - Supercharger front housing oil drain plug (1-1/8" x 1 3/8" x 3/32")	1
GAKER	R-1148	3	163D55	Nozzle - Supercharger front housing primer	1
GAKGU	R-1150	3	2105D1	Plug - Supercharger front housing primer and gage connection, pipe (1/8")	3
GAKIT	R-1152	3	163D50	Plug - Supercharger front housing primer substituting, long (3/8" - 16 x 2")	1
GAKOL	R-1154	3	163D51	Plug - Supercharger front housing primer substituting, short (3/8" - 16 x 53/64").	1
GAKUM			23D30	Gasket - Supercharger front housing primer substituting plug.	2
GAKYF			68391	Breather - Supercharger front housing.	1
				Used for the following engines: 27880 29343 - 29346 39626 - 39651 28293 29441 - 29442 39656 - 39657 28299 - 28304 31829 - 31850	
GALCA	R-1156	3	130D50	Cover - Supercharger front housing breather substituting .	1
				Used for the following engines: 29347 - 29348 29395 - 29407 31851 29350 - 29374 31723 - 31828	
GALDE			411676	Screen - Supercharger front housing breather	1
				Used with breather 68391.	

CRANKCASE - Cont'd

Code Word	Reference Number	Figure Number	Part Number	Description of Part	Number Used
				SUPERCHARGER FRONT HOUSING - Cont'd	
GALFY	R-1160	3	129D78	Gasket - Supercharger front housing breather and screen or breather substituting cover Quantities used: With substituting cover - 1; with breather and screen	2
GALGO	R-1162	3	2D7	Nut - Supercharger front housing to breather or breather substituting cover (3/8" - 24)	2
GALIB			34D14	Washer - Supercharger front housing to breather or breather substituting cover (25/64" x 3/4" x 5/64")	2
GALOS			2000D3	Lock - Supercharger front housing to breather or breather substituting cover, palnut (3/8" - 24)	2
GALUK	R-1164	3	2045D14	Screw - Supercharger front housing to crankcase main section (7/16" - 20 x 4")	18
GALYN	R-1166	3	2093D16	Washer - Supercharger front housing to crankcase main section, spherical (15/32" I.D.)	18
				SUPERCHARGER DIFFUSER PLATE	
GAMZO	R-1192	3	412909	Plate - Diffuser, assembly Includes locating pin.	1
GANAT	R-1194	3	17D20	Pin - Diffuser plate locating (3/32" x 5/16")	1
GANBY	R-1196	3	2101D3	Nut - Diffuser plate to supercharger rear housing (1/4" - 28)	5
GANCU			34D51	Washer - Diffuser plate to supercharger rear housing (17/64" x 1/2" x 3/64")	5
GANDE	R-1198	3	112403	Shim - Diffuser plate to supercharger rear housing (.0056" thick)	as req'd
				SUPERCHARGER REAR HOUSING	
GAOEZ	R-1224	3	412366	Housing - Supercharger rear. Includes: Impeller shaft sleeve Drain valve bushing Impeller drive gear shaft or intermediate impeller drive shaft bushing All studs	1
GAOFI	R-1226	3	69246	Sleeve - Supercharger rear housing impeller shaft	1
GAOGA	R-1228	3	147D4	Screw - Supercharger rear housing impeller shaft sleeve (#10 - 32 x 13/32")	2
GAOHU			27D30	Washer - Supercharger rear housing impeller shaft sleeve (13/64" x 5/16" x 1/32")	2
GAOIK	R-1230	10,11	29320	Bushing - Impeller drive gear shaft outer or impeller drive multi-plate clutch gear	1
GAOLS	R-1232	10,11	13D55	Pin - Impeller drive gear shaft outer or impeller drive multi-plate clutch gear bushing (1/8" x 13/32")	1
GAOMY	R-1234	3	19H16	Bushing - Supercharger rear housing fuel pump drive pad, screw, .003" oversize	12
GAOOB	R-1234	3	19S16	Bushing - Supercharger rear housing fuel pump drive pad, screw, .007" oversize	12
GAORP	R-1234	3	19J16	Bushing - Supercharger rear housing fuel pump drive pad, screw, .012" oversize	12
GAOST	R-1236	3	29292	Bushing - Supercharger drain valve	1
GAOWU	R-1237	3	37D26	Washer - Supercharger drain valve (49/64" x 1" x 1/32")	1
GAPAN			29288	Tube - Fuel venturi extension	1
GAPBY			68586	Tube - Oil seal vent	1
GAPCO			68587	Tube - Supercharger regulator pressure	1
GAPDI			29291	Clip - Supercharger combination drain valve return tube	1
GAPEG			132D1	Screw - Supercharger combination drain valve return tube clip (#12 - 24 x 3/8")	1
GAPOL	R-1238	3	70D6	Pin - Supercharger rear housing to supercharger rear cover, locating (3/8" x 7/8")	2
GAPUN	R-1240	3	2137H80	Stud - Supercharger rear housing to diffuser plate, .003" oversize (5/16" - 18 x 1/4" - 28 x 1 13/32")	5
GAPYT	R-1240	3	2137S80	Stud - Supercharger rear housing to diffuser plate, .007" oversize (5/16" - 18 x 1/4" - 28 x 1 13/32")	5
GARAT	R-1240	3	2137J80	Stud - Supercharger rear housing to diffuser plate, .012" oversize (5/16" - 18 x 1/4" - 28 x 1 13/32")	5
GARBY	R-1242	3	2028H37	Stud - Supercharger rear housing to oil strainer, .003" oversize (1/4" - 20 - 28 x 1 1/2")	3
GARCO	R-1242	3	2028S37	Stud - Supercharger rear housing to oil strainer, .007" oversize (1/4" - 20 - 28 x 1 1/2")	3
GARDI	R-1242	3	2028J37	Stud - Supercharger rear housing to oil strainer, .012" oversize (1/4" - 20 - 28 x 1 1/2")	3
GARES	R-1244	3	126H137	Stud - Supercharger rear housing thru supercharger rear cover to magneto, .003" oversize (3/8" - 16 x 5/16" - 24 x 1 59/64")	2
GARGL	R-1244	3	126S137	Stud - Supercharger rear housing thru supercharger rear cover to magneto, .007" oversize (3/8" - 16 x 5/16" - 24 x 1 59/64")	2

CRANKCASE - Cont'd

Code Word	Reference Number	Figure Number	Part Number	Description of Part	Number Used
				SUPERCHARGER REAR HOUSING - Cont'd	
GARIM	R-1244	3	126J137	Stud - Supercharger rear housing thru supercharger rear cover to magneto, .012" oversize (3/8" - 16 x 5/16" - 24 x 1 59/64")	2
GARKU	R-1246	3	126H154	Stud - Supercharger rear housing to supercharger rear cover (under generator), .003" oversize (3/8" - 16 x 5/8" - 24 x 1 3/4")	2
GARLA	R-1246	3	126S154	Stud - Supercharger rear housing to supercharger rear cover (under generator), .007" oversize (3/8" - 16 x 5/8" - 24 x 1 3/4")	2
GAROZ	R-1246	3	126J154	Stud - Supercharger rear housing to supercharger rear cover (under generator), .012" oversize (3/8" - 16 x 5/8" - 24 x 1 3/4")	2
GARUR	R-1248	3	2030H31	Stud - Supercharger rear housing to supercharger rear cover (at oil drain section), .003" oversize (5/16" - 18 - 24 x 2 3/4")	2
GARYP	R-1248	3	2030S31	Stud - Supercharger rear housing to supercharger rear cover (at oil drain section), .007" oversize (5/16" - 18 - 24 x 2 3/4")	2
GARZE	R-1248	3	2030J31	Stud - Supercharger rear housing to supercharger rear cover (at oil drain section), .012" oversize (5/16" - 18 - 24 x 2 3/4")	2
GASAW	R-1250	3	2030H10	Stud - Supercharger rear housing to supercharger rear cover, .003" oversize (5/16" - 18 - 24 x 1 7/16") Two units used below carburetor flange; one unit used opposite lower oil strainer attaching stud.	3
GASBO	R-1250	3	2030S10	Stud - Supercharger rear housing to supercharger rear cover, .007" oversize (5/16" - 18 - 24 x 1 7/16") Two units used below carburetor flange; one unit used opposite lower oil strainer attaching stud.	3
GASCE	R-1250	3	2030J10	Stud - Supercharger rear housing to supercharger rear cover, .012" oversize (5/16" - 18 - 24 x 1 7/16") Two units used below carburetor flange; one unit used opposite lower oil strainer attaching stud.	3
GASDY	R-1252	3	2030H12	Stud - Supercharger rear housing to supercharger rear cover, .003" oversize (5/16" - 18 - 24 x 1 9/16")	11
GASEK	R-1252	3	2030S12	Stud - Supercharger rear housing to supercharger rear cover, .007" oversize (5/16" - 18 - 24 x 1 9/16")	11
GASGU	R-1252	3	2030J12	Stud - Supercharger rear housing to supercharger rear cover, .012" oversize (5/16" - 18 - 24 x 1 9/16")	11
GASIL	R-1254	3	2139H145	Stud - Supercharger rear housing to carburetor adapter, .003" oversize (7/16" - 14 x 3/8" - 24 x 2 11/32")	8
GASKA	R-1254	3	2139S145	Stud - Supercharger rear housing to carburetor adapter, .007" oversize (7/16" - 14 x 3/8" - 24 x 2 11/32")	8
GASOT	R-1254	3	2139J145	Stud - Supercharger rear housing to carburetor adapter, .012" oversize (7/16" - 14 x 3/8" - 24 x 2 11/32")	8
GASUP	R-1256	3	2106D3	Plug - Supercharger rear housing side vent hole, pipe (3/8")	2
GASYM	R-1258	3	129D66	Gasket - Supercharger rear housing oil suction flange to supercharger rear cover	1
GATAK	R-1260	3	68413	Gasket - Supercharger rear housing to supercharger front housing	1
GATBO	R-1262	3	2D7	Nut - Supercharger rear housing to supercharger front housing (3/8" - 24)	21
GATCI			34D14	Washer - Supercharger rear housing to supercharger front housing (25/64" x 3/4" x 5/64")	21
GATDA			2000D3	Lock - Supercharger rear housing to supercharger front housing, palnut (3/8" - 24)	21
GATES	R-1264	3	411716	Breather - Supercharger housing oil seal vent, assembly Includes disc.	1
GATGU	R-1266	3	65965	Cover - Gun synchronizer impulse generator substituting	2
GATID	R-1268	3	27471	Gasket - Gun synchronizer impulse generator substituting cover	2
GATLY	R-1270	3	22D1	Screw - Gun synchronizer impulse generator substituting cover (1/4" - 20 x 3/4")	6
GATOC			27D1	Washer - Gun synchronizer impulse generator substituting cover (17/64" x 1/2" x 1/32")	6
				SUPERCHARGER DRAIN VALVE AND TUBE	
GAUPY			45439	Valve - Supercharger drain, assembly Includes housing, gasket, body, disc, plug and washer.	1
GAURA	R-1300	3	29519	Housing - Supercharger drain valve	1
GAUSE	R-1302	3	37D76	Gasket - Supercharger drain valve housing to body	1
GAUTO	R-1304	3	61726	Body - Supercharger drain valve	1

CRANKCASE - Cont'd

Code Word	Reference Number	Figure Number	Part Number	Description of Part	Number Used
				SUPERCHARGER DRAIN VALVE AND TUBE - Cont'd	
GAUVN	R-1306	3	29120	Disc - Supercharger drain valve.	1
GAUWI	R-1308	3	29118	Plug - Supercharger drain valve.	1
GAUYB	R-1310	3	37D41	Washer - Supercharger drain valve plug (7/16" x 11/16" x 1/32", fibre)	1
GAUZL	R-1312	3	45286	Tube - Supercharger rear housing fuel venturi, assembly.	1
				SUPERCHARGER HOUSING REAR COVER	
GAWAC	R-1338	4	413551	Cover - Supercharger rear, assembly. Includes bushings, plugs, gaskets and studs.	1
GAWBO	R-1340	14	66724	Bushing - Fuel pump and dual accessory drive gear shaft.	1
GAWCI	R-1342	15	69430	Bushing - Magneto and gun synchronizer impulse generator drive shaft	2
GAWDY	R-1344	14	25937	Bushing - Oil pump drive gear.	1
GAWEK	R-1346	13	69500	Bushing - Generator drive gear	1
GAWHU	R-1348	12	66375	Bushing - Accessory drive and starter shaft, standard size	1
GAWIN	R-1349	12	66375Y1	Bushing - Accessory drive and starter shaft, .005" oversize O.D.	1
GAWKY	R-1349	12	66375Y2	Bushing - Accessory drive and starter shaft, .010" oversize O.D.	1
GAWLA	R-1349	12	66375Y3	Bushing - Accessory drive and starter shaft, .030" oversize O.D.	1
GAWOS	R-1346	12	66375Y10	Bushing - Accessory drive and starter shaft, standard diameter, .030" oversize on flange.	1
GAWUM	R-1346	12	66375Y11	Bushing - Accessory drive and starter shaft, .005" oversize O.D., .030" oversize on flange	1
GAWYG	R-1348	12	66375Y12	Bushing - Accessory drive and starter shaft, .010" oversize O.D., .030" oversize on flange	1
GAXAC	R-1348	12	66375Y13	Bushing - Accessory drive and starter shaft, .030" oversize O.D., .030" oversize on flange	1
GAXEL	R-1350	14,15	28957	Bushing - Fuel pump and gun synchronizer impulse generator drive shaft, thrust	3
GAXIS	R-1352	10,11	411227	Bushing - Intermediate impeller drive shaft, rear, assembly. Includes pin.	1
GAXOP	R-1354	10,11	56D6	Screw - Intermediate impeller drive shaft rear bushing to supercharger rear cover (1/4" - 20 x 9/16")	3
GAXUR	R-1356	4	2028H8	Stud - Supercharger rear cover impeller drive multi-plate clutch housing, .003" oversize (1/4" - 20 - 28 x 1 1/4")	6
GAYBE	R-1356	4	2028S8	Stud - Supercharger rear cover impeller drive multi-plate clutch housing, .007" oversize (1/4" - 20 - 28 x 1 1/4")	6
GAYCA	R-1356	4	2028J8	Stud - Supercharger rear cover impeller drive multi-plate clutch housing, .012" oversize (1/4" - 20 - 28 x 1 1/4")	6
GAYDO	R-1358	4	2029H18	Stud - Supercharger rear cover dual accessory drive housing, long, .003" oversize (5/16" - 18 - 24 x 2").	2
GAYEU	R-1358	4	2029S18	Stud - Supercharger rear cover dual accessory drive housing, long, .007" oversize (5/16" - 18 - 24 x 2").	2
GAYFU	R-1358	4	2029J18	Stud - Supercharger rear cover dual accessory drive housing, long, .012" oversize (5/16" - 18 - 24 x 2").	2
GAYHI	R-1360	4	2030H9	Stud - Supercharger rear cover dual accessory drive housing, short, .003" oversize (5/16" - 18 - 24 x 1 3/8")	2
GAYKY	R-1360	4	2030S9	Stud - Supercharger rear cover dual accessory drive housing, short, .007" oversize (5/16" - 18 - 24 x 1 3/8")	2
GAYLE	R-1360	4	2030J9	Stud - Supercharger rear cover dual accessory drive housing, short, .012" oversize (5/16" - 18 - 24 x 1 3/8")	2
GAYOV	R-1362	4	2030H9	Stud - Supercharger rear cover oil tank vent flange, .003" oversize (5/16" - 18 - 24 x 1 3/8")	2
GAYRK	R-1362	4	2030S9	Stud - Supercharger rear cover oil tank vent flange, .007" oversize (5/16" - 18 - 24 x 1 3/8")	2
GAYUZ	R-1362	4	2030J9	Stud - Supercharger rear cover oil tank vent flange, .012" oversize (5/16" - 18 - 24 x 1 3/8")	2
GAYYB	R-1364	4	126H138	Stud - Supercharger rear cover magneto, .003" oversize (5/16" - 24 x 3/8" - 16 x 1 15/32")	4
GAZAG	R-1364	4	126S138	Stud - Supercharger rear cover magneto, .007" oversize (5/16" - 24 x 3/8" - 16 x 1 15/32")	4
GAZEF	R-1364	4	126J138	Stud - Supercharger rear cover magneto, .012" oversize (5/16" - 24 x 3/8" - 16 x 1 15/32")	4
GAZIL	R-1366	4	2032H10	Stud - Supercharger rear cover generator, .003" oversize (3/8" - 16 - 24 x 1 11/16")	6
GAZOR	R-1366	4	2032S10	Stud - Supercharger rear cover generator, .007" oversize (3/8" - 16 - 24 x 1 11/16")	6

CRANKCASE - Cont'd

SUPERCHARGER HOUSING REAR COVER - Cont'd

Code Word	Reference Number	Figure Number	Part Number	Description of Part	Number Used
GAZUM	R-1366	4	2032J10	Stud - Supercharger rear cover generator, .012" oversize (3/8" - 16 - 24 x 1 11/16")	6
GAZYP	R-1366	4	2043H65	Stud - Supercharger rear cover oil pump, .003" oversize (5/16" - 18 - 24 x 5 11/32")	8
GEABO	R-1368	4	2043S65	Stud - Supercharger rear cover oil pump, .007" oversize (5/16" - 18 - 24 x 5 11/32")	8
GEACI	R-1368	4	2043J65	Stud - Supercharger rear cover oil pump, .012" oversize (5/16" - 18 - 24 x 5 11/32")	8
GEADY	R-1370	4	2032H10	Stud - Supercharger rear cover starter, .003" oversize (3/8" - 16 - 24 x 1 11/16")	6
GEAFE	R-1370	4	2032S10	Stud - Supercharger rear cover starter, .007" oversize (3/8" - 16 - 24 x 1 11/16")	6
GEAGL	R-1370	4	2032J10	Stud - Supercharger rear cover starter, .012" oversize (3/8" - 16 - 24 x 1 11/16")	6
GEAHU	R-1372	4	2029H17	Stud - Supercharger rear cover clutch oil control valve or substituting cover, .003" oversize (5/16" - 18 - 24 x 1 1/2")	3
GEAIM	R-1372	4	2029S17	Stud - Supercharger rear cover clutch oil control valve or substituting cover, .007" oversize (5/16" - 18 - 24 x 1 1/2")	3
GEAKA	R-1372	4	2029J17	Stud - Supercharger rear cover clutch oil control valve or substituting cover, .012" oversize (5/16" - 18 - 24 x 1 1/2")	3
GEALD			66372	Tube - Supercharger regulator oil pressure	1
GEAMS	R-1376	4	2070D1	Screw - Supercharger rear cover puller (5/16" - 18 x 5/16")	3
GEANT			23D17	Gasket - Supercharger rear cover puller screw.	3
GEAOG	R-1378	4	102D33	Plug - Supercharger rear cover, headless (1/4" - 28)	6
GEAPH			2105D1	Plug - Supercharger rear cover, pipe, square head (1/8")	11
GEARD	R-1380	4	2142D1	Plug - Supercharger rear cover clutch end play clearance checking (1/8")	1
GEASK			2142D1	Plug - Supercharger rear cover oil pump suction section (1/8")	1
GEATZ	R-1384	4	2072D7	Plug - Supercharger rear cover oil suction passage, pipe (7/8" - 16)	1
GEAUM			23D19	Gasket - Supercharger rear cover oil suction passage plug.	1
GEAVE	R-1388	4	163D64	Fitting - Supercharger rear cover manifold pressure.	1
GEAWD	R-1390	4	67795	Gasket - Supercharger rear cover to supercharger rear housing	1
GEAXE	R-1392	4	2070D11	Screw - Supercharger rear cover to supercharger rear housing, (5/16" - 24 x 1 13/32")	4
GEAYB	R-1394	4	2D4	Nut - Supercharger rear cover to supercharger rear housing, plain hex. (5/16" - 24)	18
GEAZO			1D4	Nut - Supercharger rear cover to supercharger rear housing, slotted hex. (5/16" - 24)	1
GEBAC	R-1398	4	66677	Nut - Supercharger rear cover to supercharger rear housing, (under generator) slotted, round (5/16" - 24)	3
GEBBY	R-1400	4	124D83	Nut - Supercharger rear cover to supercharger rear housing, (at oil pump section) drilled hex. (5/16" - 24)	1
GEBCO			27D118	Washer - Supercharger rear cover to supercharger rear housing, plain (21/64" x 19/32" x 5/64")	21
GEBDI			27D5	Washer - Supercharger rear cover to supercharger rear housing, plain (21/64" x 9/16" x 1/32")	1
GEBEK			27D159	Washer - Supercharger rear cover to supercharger rear housing (at oil pump section) (29/64" x 3/4" x 1/16")	1
GEBFU			2000D2	Lock - Supercharger rear cover to supercharger rear housing, palnut (5/16" - 24)	20
GEBGA			28D12	Lockwasher - Supercharger rear cover to supercharger rear housing (under generator) (11/32" I.D.)	3
GEBIN	R-1402	4	23328	Cover - Generator substituting	1
GEBOX	R-1404	4	67410	Gasket - Generator substituting cover.	1
GEBUR	R-1406	4	2D7	Nut - Generator substituting cover (3/8" - 24)	6
GEBYL			34D14	Washer - Generator substituting cover (25/64" x 3/4" x 5/64")	6
GECAB			2000D3	Lock - Generator substituting cover, palnut (3/8" - 24).	6
GECDI	R-1408	4	23328	Cover - Starter substituting	1
GECEM	R-1410	4	14981	Gasket - Starter substituting cover.	1
GECFO	R-1412	4	2D7	Nut - Starter substituting cover (3/8" - 24)	6
GECGE			34D14	Washer - Starter substituting cover (25/64" x 3/4" x 5/64")	6
GECIK			2000D3	Lock - Starter substituting cover, palnut (3/8" - 24).	6
GECOT	R-1414	4	64602	Flange - Oil tank vent	1
GECUP	R-1416	4	2105D5	Plug - Oil tank vent flange, pipe (3/4")	1
GECYZ	R-1418	4	64603	Gasket - Oil tank vent flange.	1
GEDAR	R-1420	4	2D4	Nut - Oil tank vent flange (5/16" - 24).	2
GEDEX			27D118	Washer - Oil tank vent flange (21/64" x 19/32" x 5/64").	2
GEDIV			2000D2	Lock - Oil tank vent flange, palnut (5/16" - 24)	2

CRANKCASE - Cont'd

Code Word	Reference Number	Figure Number	Part Number	Description of Part	Number Used
				SUPERCHARGER HOUSING REAR COVER - Cont'd	
GEDOW	R-1422	4	66681	Cover - Supercharger clutch oil control valve substituting	1
				Used for the following engines equipped with single speed supercharger: 27880, 28295, 28299-28604, 29345-29346, 29441-29442, 31829-31880, 39626-39651, 39656-39657	
GEDUM	R-1424	4	66386	Gasket - Supercharger clutch oil control valve substituting cover.	1
				Used with cover 66681.	
GEDWE	R-1426	4	2D4	Nut - Supercharger clutch oil control valve substituting cover (5/16" - 24).	3
				Used with cover 66681.	
GEDYK			34D33	Washer - Supercharger clutch oil control valve substituting cover (21/64" x 5/8" x 1/16")	3
				Used with cover 66681.	
GEDZO			2000D2	Lock - Supercharger clutch oil control valve substituting cover, palnut (5/16" - 24)	3
				Used with cover 66681.	
				OIL SUMP	
GEFAN			89905	Sump - Oil, assembly complete.	1
				Includes oil sump, strainer, plugs and gaskets.	
GEFED	R-1460	5	89876	Sump - Oil assembly.	1
				Includes bushings.	
GEFIG	R-1462	5	4S16	Bushing - Cylinder air deflector screw, .003" oversize	2
GEFOX	R-1462	5	4H16	Bushing - Cylinder air deflector screw, .007" oversize	2
GEFUL	R-1462	5	4J16	Bushing - Cylinder air deflector screw, .012" oversize	2
GEFYT	R-1464	5	2091D2	Plug - Oil sump drain, magnetic (1" - 18).	1
				Includes gasket.	
GEGAP	R-1466	5	23D5	Gasket - Oil sump drain plug	1
GEGER	R-1468	5	46941	Strainer - Oil sump.	1
GEGIS	R-1470	5	23D23	Gasket - Oil sump strainer	1
GEGOV	R-1472	5	2D7	Nut - Oil sump to crankcase front section (3/8" - 24).	3
GEGUX			34D14	Washer - Oil sump to crankcase front section (25/64" x 3/4" x 5/64")	3
GEGWO			2000D3	Lock - Oil sump to crankcase front section, palnut (3/8" - 24)	3
GEGYL	R-1474	5	68514	Gasket - Oil sump to crankcase front section	1
GEGZE	R-1476	5	2D7	Nut - Oil sump to supercharger front housing (3/8" - 24)	4
GEHBA			34D14	Washer - Oil sump to supercharger front housing (25/64" x 3/4" x 5/64")	4
GEHCO			2000D3	Lock - Oil sump to supercharger front housing, palnut (3/8" - 24)	4
GEHDI	R-1478	5	68515	Gasket - Oil sump to supercharger front housing, right	1
GEHEN	R-1480	5	68516	Gasket - Oil sump to supercharger front housing, left.	1
GEHIT	R-1482	5	125D114	Screw - Engine name plate to oil sump (#12 - 24 x 17/32").	4
GEHOD	R-1484	5	2067D10	Lockwasher - Engine name plate to oil sump, tab (1/4" I.D.)	4

Code Word	Reference Number	Figure Number	Part Number	Description of Part	Number Used
				OIL PUMP SYSTEM	
GEIOG			413361	Pump - Oil, assembly complete.	1
				Used for the following engines: 27880, 28293, 28299 - 28304, 29343 - 29347, 29441 - 29442	
				This pump has six screws attaching the tachometer drive housing and cover to the oil pump cover and has the electric and mechanical tachometer drives driven at one half times engines speed.	
				Includes oil check valve and oil pressure relief valve.	
GEIPH			414111	Pump - Oil, assembly complete.	1
				Used for the following engines: 29348, 29395 - 29407, 31723 - 31724, 31727 - 31757, 31829 - 31850, 39626 - 39651, 39656 - 39657	
				This pump has five screws attaching the tachometer drive housing and cover to the oil pump cover and has the electric and mechanical tachometer drives driven at one half times engine speed.	
				Includes oil check valve and oil pressure relief valve.	
GEIRS			414110	Pump - Oil, assembly complete.	1
				Used for the following engines: 29350 - 29374, 31725 - 31726, 31758 - 31828, 31851	
				The pump has five screws attaching the tachometer drive housing and cover to the oil pump cover and has the electric and mechanical tachometer drives driven at engine speed.	
				Includes oil check valve and oil preasure relief valve.	
GEITY			413336	Body - Oil pump, assembly.	1
				Used with oil pump 413361.	
				Includes body, end plate, oil pump cover and tachometer drive housing and cover. These parts are line-reamed after assembly and are not sold separately.	
GEIUW	R-1520	6	414109	Body - Oil pump, assembly.	1
				Used with oil pumps 414110 and 414111.	
				Includes body, end plate, oil pump cover and tachometer drive housing and cover. These parts are line-reamed after assembly and are not sold separately.	
GEIVN	R-1522	6	64280	Bushing - Oil pump thermometer connection.	3
GEIXA	R-1524	6	66185	Dowel - Oil pump body.	4
GEIZE	R-1526	6	61990	Gasket - Oil pump end plate to oil pump body	1
GEJAC	R-1528	6	110432	Bushing - Electric tachometer drive gear shaft, front. . .	1
GEJED	R-1530	6	68345	Bushing - Electric tachometer drive gear shaft, rear . . .	1
GEJIM	R-1532	6	2028H32	Stud - Oil pump cover thru tachometer drive housing to tachometer drive housing cover, .003" oversize (1/4" - 20 - 28 x 2 3/4")	2
GEJOL	R-1532	6	2028S32	Stud - Oil pump cover thru tachometer drive housing to tachometer drive housing cover, .007" oversize (1/4" - 20 - 28 x 2 3/4")	2
GEJUG	R-1532	6	2028J32	Stud - Oil pump cover thru tachometer drive housing to tachometer drive housing cover, .012" oversize (1/4" - 20 - 28 x 2 3/4")	2
GEJYF	R-1534	6	118H6	Stud - Tachometer drive housing cover to mechanical tachometer drive housing, .003" oversize (1/4" - 20 - 28 x 1").	2
GEKAT	R-1534	6	118S6	Stud - Tachometer drive housing cover to mechanical tachometer drive housing, .007" oversize (1/4" - 20 - 28 x 1").	2
GEKES	R-1534	6	118J6	Stud - Tachometer drive housing cover to mechanical tachometer drive housing, .012" oversize (1/4" - 20 - 28 x 1").	2
GEKFO	R-1536	6	2137H75	Stud - Tachometer drive housing cover to electric tachometer, .003" oversize (5/16" - 18 x 1/4" - 28 x 1 11/32")	4
GEKGI	R-1536	6	2137S75	Stud - Tachometer drive housing cover to electric tachometer, .007" oversize (5/16" - 18 x 1/4" - 28 x 1 11/32")	4
GEKHU	R-1536	6	2137J75	Stud - Tachometer drive housing cover to electric tachometer, .012" oversize (5/16" - 18 x 1/4" - 28 x 1 11/32")	4
GEKKY	R-1538	6	2029H61	Stud - Oil pump inlet and outlet connection flange, .003" oversize (5/16" - 18 - 24 x 1 27/64")	6

OIL PUMP SYSTEM - Cont'd

Code Word	Reference Number	Figure Number	Part Number	Description of Part	Number Used
				OIL PUMP - Cont'd	
GEKLA	R-1538	6	2029861	Stud - Oil pump inlet and outlet connection flange, .007" oversize (5/16" - 18 - 24 x 1 27/64")	6
GEKOM	R-1538	6	2029J61	Stud - Oil pump inlet and outlet connection flange, .012" oversize (5/16" - 18 - 24 x 1 27/64")	6
GEKUB	R-1540	6	110426	Shaft - Oil pump drive	1
GEKYZ	R-1542	6	110423	Coupling - Oil pump drive	1
GELAR	R-1544	6	124D118	Nut - Oil pump drive coupling (3/8" - 24)	1
GELBI			34D14	Washer - Oil pump drive coupling (25/64" x 3/4" x 5/64")	1
GELCO	R-1546	6	66186	Shaft - Oil suction pump idler gear	1
GELDU	R-1548	6	110562	Gear - Oil suction pump idler	1
GELEN	R-1550	6	110427	Gear - Oil pressure pump drive	1
GELIK	R-1552	6	110563	Gear - Oil pressure pump	1
GELLY	R-1554	6	68677	Gasket - Oil pump body to cover	1
GELOT	R-1556	6	2083D10	Ring - Tachometer drive gear shaft oil seal	1
GELUP	R-1558	6	110433	Retainer - Tachometer drive gear shaft oil seal ring	1
GELYZ			110438	Gasket - Oil pump cover to tachometer drive housing Used with oil pump 413361.	1
GEMAC	R-1560	6	111356	Gasket - Oil pump cover to tachometer drive housing Used with oil pumps 414110 and 414111.	1
GEMBY			413331	Shaft - Tachometer drive gear, assembly Used with oil pumps 413361 and 414111.	1
GEMCI	R-1562	6	414027	Shaft - Tachometer drive gear, assembly Used with oil pump 414110.	1
GEMDO	R-1564	6	68359	Spring - Tachometer drive gear shaft oil seal	1
GEMEL	R-1566	6	68360	Retainer - Tachometer drive gear shaft oil seal spring	1
GEMFU	R-1568	6	87D9	Pin - Tachometer drive gear shaft oil seal spring retainer (5/64" x 29/64")	1
GEMIT	R-1570	6	110429	Sleeve - Tachometer drive gear shaft	1
GEMMY			413333	Shaft - Electric tachometer drive, assembly Used with oil pumps 413361 and 414111. Includes oil seal bushing.	1
GEMOR	R-1572	6	414044	Shaft - Electric tachometer drive, assembly Used with oil pump 414110. Includes oil seal bushing.	1
GEMUK	R-1574	6	412362	Bushing - Electric tachometer drive shaft oil seal, assembly Includes spring, retainer and pin.	1
GEMYZ	R-1576	6	68359	Spring - Electric tachometer drive shaft oil seal	1
GENBA	R-1578	6	68360	Retainer - Electric tachometer drive shaft oil seal spring	1
GENCO	R-1580	6	87D9	Pin - Electric tachometer drive shaft oil seal spring retainer (5/64" x 29/64")	1
GENDY	R-1582	6	2083D10	Ring - Electric tachometer drive shaft oil seal	1
GENEG	R-1584	6	68408	Retainer - Electric tachometer drive shaft oil seal ring	1
GENIT			413332	Shaft - Mechanical tachometer drive, assembly Used with oil pump 413361. Includes oil seal bushing.	1
GENOZ			411665	Shaft - Mechanical tachometer drive, assembly Used with oil pump 414111. Includes oil seal bushing.	1
GENUX	R-1586	6	411705	Shaft - Mechanical tachometer drive, assembly Used with oil pump 414110. Includes oil seal bushing.	1
GENYF	R-1588	6	412362	Bushing - Mechanical tachometer drive shaft oil seal, assembly Includes spring, retainer and pin.	1
GEOBO	R-1590	6	68359	Spring - Mechanical tachometer drive shaft oil seal	1
GEOCA	R-1592	6	68360	Retainer - Mechanical tachometer drive shaft oil seal spring	1
GEODI	R-1594	6	87D9	Pin - Mechanical tachometer drive shaft oil seal retainer (5/64" x 29/64")	1
GEOEK	R-1596	6	2083D10	Ring - Mechanical tachometer drive shaft oil seal	1
GEOLN	R-1598	6	68408	Retainer - Mechanical tachometer drive shaft oil seal ring	1
GEOMU			110439	Gasket - Tachometer drive housing to tachometer drive housing cover Used with oil pump 413361.	1

OIL PUMP SYSTEM - Cont'd

Code Word	Reference Number	Figure Number	Part Number	Description of Part	Number Used
				OIL PUMP - Cont'd	
GEOOR	R-1600	6	111357	Gasket - Tachometer drive housing to tachometer drive housing cover Used with oil pumps 414110 and 414111.	1
GEOPH	R-1602	6	411667	Housing - Mechanical tachometer drive shaft, assembly. Includes bushing.	1
GEOSL	R-1604	6	68370	Bushing - Mechanical tachometer drive shaft housing.	1
GEOTY	R-1606	6	129D67	Gasket - Mechanical tachometer drive shaft housing to tachometer drive housing.	1
GEOUG	R-1608	6	2D1	Nut - Mechanical tachometer drive shaft housing to tachometer drive housing (1/4" - 28)	2
GEOYM			34D51	Washer - Mechanical tachometer drive shaft housing to tachometer drive housing (17/64" x 1/2" x 3/64").	2
GEOZE			2000D1	Lock - Mechanical tachometer drive shaft housing to tachometer drive housing, palnut (1/4" - 28)	2
GEPBI	R-1612	6	C6516	Cap - Mechanical tachometer drive shaft housing.	1
GEPCO	R-1614	6	37D28	Washer - Mechanical tachometer drive shaft housing cap (5/8" x 13/16" x 1/32")	1
GEPDU	R-1616	6	28922	Cover - Electric tachometer drive.	1
GEPEN	R-1618	6	69072	Gasket - Electric tachometer drive cover	1
GEPGY	R-1620	6	2D1	Nut - Electric tachometer drive cover (1/4" - 28).	4
GEPIT			34D51	Washer - Electric tachometer drive cover (17/64" x 1/2" x 3/64").	4
GEPOX			2000D1	Lock - Electric tachometer drive cover, palnut (1/4" - 28)	4
GEPPH	R-1622	6	4037D4	Flange - Oil pump inlet and outlet connection.	2
GEPUG	R-1624	6	66779	Gasket - Oil pump inlet and outlet connection flange	2
GEPYR			2162D6	Plug - Oil pump inlet and outlet connection flange (1").	2
GEPZE	R-1628	6	2D4	Nut - Oil pump inlet and outlet connection flange (5/16" - 24)	6
GERAR			34D33	Washer - Oil pump inlet and outlet connection flange (21/64" x 5/8" x 1/16")	6
GERBY			2000D2	Lock - Oil pump inlet and outlet connection flange, palnut (5/16" - 24)	6
GERCT	R-1630	6	137D11	Screw - Tachometer drive housing cover thru tachometer drive housing to oil pump cover (1/4" - 20 x 2 3/16") Quantities used: With oil pumps 414110 and 414111 - 5; with oil pump 413361	6
GERDU			34D51	Washer - Tachometer drive housing cover thru tachometer drive housing to oil pump cover (17/64" x 1/2" x 3/64") Quantities used: With oil pumps 414110 and 414111 - 5; with oil pump 413361	6
GEREP	R-1632	6	93D18	Plug - Oil temperature gage connection (5/8" - 18)	3
GERFA	R-1633	6	23D16	Gasket - Oil temperature gage connection plug.	3
GERGO	R-1634	6	2105D2	Plug - Oil pump pressure connection (1/4")	1
GERHI	R-1636	6	62024	Gasket - Oil pump to supercharger rear cover	1
GERKL	R-1638	6	1D4	Nut - Oil pump to supercharger rear cover (5/16" - 24)	8
GEROM			34D33	Washer - Oil pump to supercharger rear cover (21/64" x 5/8" x 1/16")	8
				OIL CHECK VALVE	
GESOG	R-1666	6	66449	Body - Oil check valve	1
GESUM	R-1668	6	66450	Valve - Oil check.	1
GESYN	R-1670	6	66452	Spring - Oil check valve	1
GESZA	R-1672	6	66451	Retainer - Oil check valve	1
GETBO	R-1674	6	23D23	Gasket - Oil check valve retainer.	1
GETCI	R-1676	6	66453	Ring - Oil check valve oil seal.	1
				OIL PRESSURE RELIEF VALVE	
GEUCA	R-1702	6	65857	Body - Oil pressure relief valve	1
GEUDO	R-1704	6	110568	Valve - Oil pressure relief.	1
GEUEK	R-1706	6	110567	Spring - Oil pressure relief valve	1
GEUFI	R-1708	6	65853	Nut - Oil pressure relief valve adjusting.	1
GEUGY	R-1710	6	65855	Nut - Oil pressure relief valve.	1
GEUHU	R-1712	6	65852	Cap - Oil pressure relief valve.	1
GEUIG	R-1714	6	65858	Washer - Oil pressure relief valve	2
				OIL STRAINER	
GEVAM	R-1740	7	69474	Strainer - Oil (Automatic and Manual Operation).	1
GEVBE	R-1742	7	26240	Gasket - Oil strainer to supercharger rear housing	1
GEVCU	R-1744	7	66848	Nut - Oil strainer to supercharger rear housing, wing.	3

CAM AND CAM DRIVE

Code Word	Reference Number	Figure Number	Part Number	Description of Part	Number Used
GEWCI	R-1770	8	68383	Cam	1
GEWDO	R-1772	8	69272	Ring - Cam bearing	1
GEWEX	R-1774	8	69273	Spacer - Cam bearing ring	1
GEWFY	R-1776	8	69071	Spacer - Cam drive gear bracket	1
GEWGU	R-1778	8	414997	Bracket - Cam drive gear, assembly	1
				This bracket is 9/32" thick at the attaching screw holes. Some engines were equipped with bracket 411703 which is 7/32" thick at the attaching screw holes. Bracket 411703 is no longer supplied. For replacement, use 414997 and 8 units of screw 35-D-32.	
				Includes bushing and plug.	
GEWHA	R-1780	8	68379	Bushing - Cam drive gear	1
GEWIB	R-1782	8	102D33	Plug - Cam drive gear bracket oil line, pipe (1/4")	1
GEWJE			35D7	Screw - Cam bracket to crankcase main bearing front ring (3/8" - 24 x 3/4")	8
				Used with bracket 411703. Read note under 414997.	
GEWOK	R-1784	8	35D32	Screw - Cam bracket to crankcase main bearing front ring (3/8" - 24 x 13/16")	8
				Used with bracket 414997.	
GEWUL	R-1786	8	68380	Spacer - Cam drive gear	1
GEWYN			68386	Gear - Cam drive (2 7/8" overall length)	1
				Used for the following engines: 27880, 28293, 28299 - 28303, 29345 - 29347, 29350 - 29361, 31851	
GEXAG	R-1788	8	112315	Gear - Cam drive (2 27/32" overall length)	1
				Used for the following engines: 28304, 29343 - 29344, 29348, 29352 - 29374, 29395 - 29407, 29441 - 29442, 31785 - 31850, 39626 - 39651, 39656 - 39657	
GEXBU			68381	Pinion - Cam drive gear (7/8" long)	1
				Used with gear 68386.	
GEXCO	R-1790	8	112316	Pinion - Cam drive gear (27/32" long	1
				Used with gear 112315.	
GEXDI	R-1792	8	112313	Bolt - Cam drive gear to pinion	1
GEXEZ	R-1794	8	124D107	Nut - Cam drive gear to pinion bolt (5/16" - 24)	1

Code Word	Reference Number	Figure Number	Part Number	Description of Part	Number Used
				IMPELLER AND IMPELLER DRIVE	
				IMPELLER AND IMPELLER SHAFT	
GEYEX	R-1820	9	68585	Impeller - Supercharger.	1
GEYFA			412379	Shaft - Impeller, assembly (7.0:1 ratio)	1
				Used for engines equipped with single speed supercharger impeller drive.	
				Includes bushings.	
GEYGO	R-1822	9	412381	Shaft - Impeller, assembly (10:1 ratio).	1
				Used for engines equipped with two speed supercharger impeller drive.	
				Includes bushings.	
GEYHU	R-1824	9	61235	Bushing - Impeller shaft, front.	1
GEYID			65161	Bushing - Impeller shaft, rear, plain.	1
				Used with shaft 412379.	
GEYJY	R-1826	9	69163	Bushing - Impeller shaft, rear, shouldered and splined . .	1
				Used with shaft 412381.	
GEYOC	R-1828	9	29250	Sleeve - Impeller shaft oil, front	1
GEYUL	R-1830	9	68369	Sleeve - Impeller shaft oil, rear.	1
GEYYZ	R-1832	9	64870	Ring - Impeller oil seal, standard size.	8
GEZAK	R-1832	9	64870Y1	Ring - Impeller oil seal, .005" oversize width, standard O.D	8
GEZBE	R-1832	9	64870Y2	Ring - Impeller oil seal, .010" oversize width, standard O.D	8
GEZCI	R-1832	9	64870Y10	Ring - Impeller oil seal, standard width, .005" oversize O.D	8
GEZDO	R-1832	9	64870Y11	Ring - Impeller oil seal, .005" oversize width, .005" oversize O.D.	8
GEZEP	R-1832	9	64870Y12	Ring - Impeller oil seal, .010" oversize width, .005" oversize O.D.	8
GEZFU	R-1832	9	64870Y20	Ring - Impeller oil seal, standard width, .010" oversize O.D	8
GEZGY	R-1832	9	64870Y21	Ring - Impeller oil seal, .005" oversize width, .010" oversize O.D.	8
GEZIK	R-1832	9	64870Y22	Ring - Impeller oil seal, .010" oversize width, .010" oversize O.D.	8
GEZLA	R-1834	9	62864	Washer - Impeller shaft gear, bronze	1
GEZOM	R-1836	9	69164	Washer - Impeller shaft thrust ring, steel, splined. . . .	1
				Used with shaft 412361.	
GEZPH	R-1838	9	62862	Ring - Impeller shaft thrust	1
GEZUX	R-1840	9	66373	Retainer - Impeller shaft.	1
GEZYT	R-1842	9	66374	Ring - Impeller shaft retainer, oil seal	1
GHABI	R-1844	9	25888	Shim - Impeller shaft retainer	1
GHACO	R-1846	9	66D3	Screw - Impeller shaft retainer to supercharger rear housing (1/4" - 20 x 11/16").	5
GHADA	R-1848	9	61031	Nut - Impeller shaft front	1
GHAEL	R-1850	9	2067D1	Lock - Impeller shaft front nut.	1
				IMPELLER DRIVE (SINGLE SPEED)	
GHEEK	R-1876	10	66682	Gear - Impeller drive and pinion (7.0:1 ratio)	1
				Used for the following engines: 27880 29343 - 29345 39626 - 39631 28293 29441 - 29442 39656 - 39657 28299 - 28304 31829 - 31850	
				IMPELLER DRIVE (TWO SPEED) (7.14:1 and 10:1)	
				Parts listed in this group are used for the following engines equipped with two speed supercharger impeller drive: 29347 - 29348 29395 - 29407 31851 29350 - 29374 31723 - 31828	
GHIEL	R-1902	11	62347	Gear - Impeller drive multi-plate clutch (10:1).	1
GHIFT	R-1904	11	62343	Piston - Impeller drive multi-plate clutch (10:1).	1
GHIGI	R-1906	11	111149	Ring - Impeller drive multi-plate clutch piston, standard size (10:1)	1
GHIHN	R-1906	11	111149Y10	Ring - Impeller drive multi-plate clutch piston, .005" oversize on O.D. (10:1)	1
GHIIW	R-1906	11	111149Y20	Ring - Impeller drive multi-plate clutch piston, .010" oversize on O.D. (10:1)	1
GHIKO	R-1906	11	111149Y30	Ring - Impeller drive multi-plate clutch piston, .015" oversize on O.D. (10:1)	1
GHILU	R-1908	11	65125	Adapter - Impeller drive multi-plate clutch (10:1)	1
GHIMA	R-1910	11	66266	Disc - Impeller drive multi-plate clutch (10:1).	3
GHINY	R-1912	11	64992	Retainer - Impeller drive multi-plate clutch disc, inner (10:1).	2

IMPELLER AND IMPELLER DRIVE - Cont'd

Code Word	Reference Number	Figure Number	Part Number	Description of Part	Number Used
				IMPELLER DRIVE (TWO SPEED) (7.14:1 and 10:1) - Cont'd	
GHIOD	R-1914	11	62346	Retainer - Impeller drive multi-plate clutch disc, outer (10:1)	1
GHIPH	R-1916	11	85D16	Lockwire - Impeller drive multi-plate clutch gear (10:1)	1
GHIRS	R-1918	11	61639	Spring - Impeller clutch release (10:1)	1
GHITZ	R-1920	11	49718	Gear - Intermediate impeller drive, with bushing	1
GHIUG	R-1922	11	66260	Bushing - Intermediate impeller drive gear	1
GHIVN	R-1924	11	13D54	Pin - Intermediate impeller drive gear bushing (1/8" x 9/32")	2
GHIWL	R-1926	11	411004	Shaft - Intermediate impeller drive, assembly. Includes plug and pins.	1
GHIXR	R-1928	11	63482	Valve - Intermediate impeller drive shaft plug check	1
GHIYB	R-1930	11	63483	Spring - Intermediate impeller drive shaft plug check valve	1
GHIZP	R-1932	11	2105D2	Plug - Intermediate impeller drive shaft plug check valve spring, pipe, square head (1/4")	1
GHOBI	R-1934	11	66262	Pinion - Intermediate impeller drive gear.	5
GHOCA	R-1936	11	66263	Bushing - Intermediate impeller drive gear pinion.	5
GHODY	R-1938	11	61853	Lock - Intermediate impeller drive gear pinion	5
GHOEK	R-1940	11	66264	Gear - Intermediate impeller drive sun	1
GHOFO	R-1942	11	69558	Bushing - Intermediate impeller drive sun gear	1
GHOGL	R-1944	11	64990	Housing - Impeller drive multi-plate clutch (7.14:1)	1
GHOHU	R-1946	11	1D1	Nut - Impeller drive multi-plate clutch housing to supercharger rear cover (1/4" - 28)	6
GHOIV			34D51	Washer - Impeller drive multi-plate clutch housing to supercharger rear cover (17/64" x 1/2" x 3/64")	6
GHOKR	R-1950	11	66267	Disc - Impeller drive multi-plate clutch (7.14:1).	3
GHOLL	R-1952	11	64994	Plate - Impeller drive multi-plate clutch (7.14:1)	2
GHOMS	R-1954	11	64952	Washer - Two speed clutch thrust	1
GHOOP	R-1956	11	63612	Spring - Impeller clutch release (7.14:1).	1
GHORT	R-1958	11	67680	Spacer - Intermediate impeller drive shaft	1
GHOSH	R-1960	11	412064	Piston and Lock - Impeller drive multi-plate clutch, assembly (7.14:1) Includes piston and lock. Due to the special fit required when assembling these parts, neither of them are supplied separately.	1
GHOUD	R-1962	11	63276	Ring - Impeller drive multi-plate clutch piston, standard size (7.14:1)	1
GHOYG	R-1962	11	63276Y20	Ring - Impeller drive multi-plate clutch piston, .010" oversize O.D. (7.14:1).	1
GHOZN	R-1964	11	67803	Sleeve - Impeller drive multi-plate clutch (7.14:1).	1
				CLUTCH CONTROL VALVE HOUSING Parts listed in this group are used for engines equipped with two speed supercharger impeller drive.	
GHUBA	R-1990	11	69142	Housing - Clutch control valve	1
GHUCO			66382	Valve - Clutch control (One piece type). Used for the following engines: 29347 29395 - 29396 31851 29350 - 29374 31788 - 31828	1
GHUDI	R-1992	11	413392	Valve - Clutch control, assembly (Multi-piece type). Used for the following engines: 29348 29397 - 29407 31723 - 31787 Includes stem, spring, nut and washer.	1
GHUEK			69143	Sleeve - Clutch control valve. Used with valve 66382.	1
GHUGR	R-1994	11	110489	Sleeve - Clutch control valve. Used with valve 110487.	1
GHUHU	R-1996	11	66383	Spring - Clutch control valve.	1
GHUIN	R-1998	11	66384	Packing - Clutch control valve (cork).	1
GHUKL	R-2000	11	69144	Packing - Clutch control valve (Duprene)	1
GHUMY	R-2002	11	27D202	Washer - Clutch control valve spring (11/32" x 35/64" x 1/32")	1
GHUNT	R-2004	11	66386	Gasket - Clutch control valve housing.	1
GHUOF	R-2006	11	2D4	Nut - Clutch control valve housing to supercharger rear cover (5/16" - 24)	3
GHUPH			34D33	Washer - Clutch control valve housing to supercharger rear cover (21/64" x 5/8" x 1/16")	3
GHURV			2000D2	Lock - Clutch control valve housing to supercharger rear cover, palnut (5/16" - 24)	3

Code Word	Reference Number	Figure Number	Part Number	Description of Part	Number Used
				ACCESSORY DRIVES	
				ACCESSORY DRIVE AND STARTER SHAFT	
GHYAK	R-2040	12	68368	Shaft - Accessory drive and starter.	1
GHYBO	R-2042	12	66376	Ring - Accessory drive and starter shaft	1
GHYCI	R-2044	12	67369	Ring - Accessory drive and starter shaft crankshaft coupling oil seal	1
GHYDU	R-2046	12	62336	Gear - Accessory drive	1
GHYEK	R-2048	12	29550	Spring - Accessory drive gear.	5
GHYFN	R-2050	12	62338	Pin - Accessory drive gear spring.	10
GHYGL	R-2052	12	29539	Plate - Accessory drive gear, rear	1
GHYIW	R-2054	12	86D5	Screw - Accessory drive gear plate (#10 - 32 x 1/4")	5
GHYKS	R-2056	12	66326	Coupling - Accessory drive and starter shaft (3 jaw)	1
				Used for all engines except 29347.	
GHYLB			66377	Coupling - Accessory drive and starter shaft (12 jaw).	1
				Used for engine 29347.	
GHYMD	R-2058	12	67768	Spacer - Accessory drive and starter shaft coupling.	1
GHYNT	R-2060	12	66327	Packing - Accessory drive and starter shaft oil seal	1
GHYOV	R-2062	12	66328	Ring - Accessory drive and starter shaft oil seal.	1
GHYPY	R-2064	12	66329	Gasket - Accessory drive and starter shaft oil seal ring	1
GHYRU	R-2066	12	2054D7	Screw - Accessory drive and starter shaft oil seal retaining ring (#10 - 32 x 5/16")	12
GHYSX			189D1	Lockwasher - Accessory drive and starter shaft oil seal retaining ring, shakeproof (13/64" I.D.).	12
				GENERATOR DRIVE	
GIABY	R-2096	13	414348	Gear - Generator drive, assembly	1
				A cup plug is assembled at the propeller end of this gear and a circlet is installed in the splines. Some engines were equipped with gear 412639 which has the cup plug assembled at the propeller end of the splines and does not include a circlet. Gear 412639 is no longer supplied. For replacement, use gear 414348. Includes plug and circlet.	
GIACO	R-2098	13	2052D21	Plug - Generator drive gear, cup	1
				Used with gear 414348.	
GIADV			2052D12	Plug - Generator drive gear, cup	1
				Used with gear 412639.	
GIAEM	R-2100	13	2019D7	Circlet - Generator drive gear	1
				Used with gear 414348.	
GIAFT	R-2102	13	68928	Spring - Generator drive oil seal.	1
GIAGL	R-2104	13	69501	Collar - Generator drive oil seal.	1
				This collar as now supplied has the oil seal lip moved forward to .196" from the anti-propeller face and requires the use of the offset type diaphragm 111033. Originally, this collar had the lip .152" from the anti-propeller face and was used with the flat type diaphragm 68930. When replacing the early low lip collar with the high lip type, it will be necessary to use diaphragm 111033 and discard 68930.	
GIAHE			68930	Diaphragm - Generator drive oil seal (Flat type)	1
				Read note under collar 69501.	
GIAIR	R-2106	13	111033	Diaphragm - Generator drive oil seal (Offset type)	1
				Read note under collar 69501.	
GIAJO	R-2108	13	68929	Seal - Generator drive oil	1
GIAKY	R-2110	13	68932	Ring - Generator drive oil seal, small	1
GIAMI	R-2112	13	68933	Ring - Generator drive oil seal, large	1
GIAND	R-2114	13	147D4	Screw - Generator drive oil seal ring (#10 - 32 x 13/32").	6
GIAOG			189D1	Lockwasher - Generator drive oil seal ring, shakeproof (13/64" I.D.)	6
				OIL PUMP DRIVE	
GIBOX	R-2139	14	413453	Gear - Oil pump drive, with plug	1
GIBUN	R-2140	14	110425	Plug - Oil pump drive gear	1
GIBYK	R-2142	14	110424	Spring - Oil pump drive gear	1
				FUEL PUMP AND DUAL ACCESSORY DRIVE	
GIDAR	R-2168	14	28305	Gear - Fuel pump and dual accessory drive.	1
GIDBY	R-2170	14	65D15	Screw - Fuel pump and dual accessory drive gear to shaft (1/4" - 28 x 3/8").	6
GIDCO	R-2172	14	46484	Shaft - Fuel pump and dual accessory drive gear, with plug	1

ACCESSORY DRIVES - Cont'd

Code Word	Reference Number	Figure Number	Part Number	Description of Part	Number Used
				FUEL PUMP DRIVE	
GIEDI	R-2200	14	411684	Support - Fuel pump drive shaft.	1
				Includes bushings.	
GIEEL	R-2202	14	68609	Bushing - Fuel pump drive shaft support.	2
GIEFT	R-2204	14	68610	Gasket - Fuel pump drive shaft support	1
GIEGU	R-2206	14	411883	Shaft - Fuel pump drive, with plug	1
GIEHO	R-2208	14	61951	Plug - Fuel pump drive shaft	1
GIEIN	R-2210	14	61957	Seal - Fuel pump drive shaft oil	1
GIEKA	R-2212	14	67566	Cover - Fuel pump substituting	1
GIELD	R-2214	14	67575	Gasket - Fuel pump substituting cover.	1
GIEMS	R-2216	14	2043D62	Stud - Fuel pump or substituting cover to supercharger rear housing (5/16" - 24 x 2 1/16")	4
GIEOG	R-2218	14	1D4	Nut - Fuel pump or substituting cover to supercharger rear housing (5/16" - 24).	4
GIEPH			34D33	Washer - Fuel pump or substituting cover to supercharger rear housing (21/64" x 5/8" x 1/16").	4
				MAGNETO AND GUN SYNCHRONIZER IMPULSE GENERATOR DRIVE	
GIFUR	R-2244	15	27629	Gear - Magneto drive	2
GIFYT	R-2246	15	65D15	Screw - Magneto drive gear (1/4" - 28 x 11/32").	12
GIFZU			412186	Shaft - Magneto and gun synchronizer impulse generator drive, assembly (16:9 ratio).	2
				Detail parts not supplied separately.	
GIGAB	R-2248	15	412584	Shaft - Magneto and gun synchronizer impulse generator drive, assembly (3:2 ratio)	2
				Detail parts not supplied separately.	
GIGCO	R-2250	15	68928	Spring - Magneto drive oil seal.	2
GIGDU	R-2252	15	68932	Ring - Magneto drive oil seal, small	2
GIGEP	R-2254	15	111033	Diaphragm - Magneto drive oil seal	2
GIGGA	R-2256	15	68929	Seal - Magneto drive oil	2
GIGIL	R-2258	15	68933	Ring - Magneto drive oil seal, large	2
GIGOW	R-2260	15	68931	Collar - Magneto drive oil seal.	2
GIGUR	R-2262	15	147D4	Screw - Magneto drive oil seal, lock (#10 - 32 x 13/32") .	12
GIGYN			189D1	Lockwasher - Magneto drive oil seal lock screw, shakeproof (13/64" I.D.)	12
				CONTROLLABLE PITCH PROPELLER GOVERNOR DRIVE	
GIKAL	R-2290	16	68480	Gear - Intermediate governor drive	1
GIKBO	R-2292	16	90D31	Screw - Intermediate governor drive gear to cam drive gear (5/16" - 24 x 1/4").	6
GIKCI	R-2294	16	68404	Gear - Governor drive.	1
GIKDY	R-2296	16	111092	Shaft - Governor drive gear.	1
GIKEG	R-2298	16	65D19	Screw - Governor drive gear to shaft (1/4" - 28 x 1/4"). .	6
GIKHU	R-2300	16	64815	Circlet - Governor drive gear shaft.	1
GIKIX	R-2302	1	112984	Cover - Governor substituting.	1
GIKKA	R-2304	1	63867	Gasket - Governor substituting cover	1
GIKOG	R-2306	1	2D4	Nut - Governor or governor substituting cover to crankcase front section (5/16" - 24).	4
GIKUL			34D33	Washer - Governor or governor substituting cover to crankcase front section (21/64" x 5/8" x 1/16") . . .	4
GIKYT			2000D2	Lock - Governor or governor substituting cover to crankcase front section, palnut (5/16" - 24)	4
				DUAL ACCESSORY DRIVE	
				Two types of accessory drives have been used on engines included in this catalog. The early type drive includes a housing having the upper right hand mounting hole section 9/32" thick. The late type has this section 1 13/32" thick and has the cover cut out 1/8" deep at this location to clear the housing to rear supercharger cover attaching nut. Only the late type complete accessory drive is supplied.	
GIMAR			412559	Dual Accessory Drive - Assembly, complete (1.687:1 ratio).	1
				Used for the following engines: 27980 28299 - 28304 29441 - 29442 28293 29343 - 29346	
				This dual accessory drive has a small square upper accessory drive equipped with a 16 tooth involute spline drive and a large square lower accessory drive equipped with a 6 tooth square spline drive. For replacement of an early type drive 410127, installed on some of the above engines, use 412559. Read note under "Dual Accessory Drive" above.	
				Includes all parts required to install the dual accessory drive.	

Code Word	Reference Number	Figure Number	Part Number	Description of Part	Number Used

ACCESSORY DRIVES - Cont'd

DUAL ACCESSORY DRIVE - Cont'd

GIMBL			413485	Dual Accessory Drive - Assembly, complete (1.500:1 ratio). Used for the following engines: 29347 - 29348 29395 - 29407 31851 29350 - 29374 31725 - 31832 39656 - 39657 This dual accessory drive has a small square upper accessory drive equipped with a 12 tooth involute spline drive and a large square lower accessory drive also equipped with a 12 tooth involute spline drive. Includes all parts required to install the dual accessory drive.	1
GIMCO			412562	Dual Accessory Drive - Assembly, complete (1.500:1 ratio). Used for the following engines: 31853 - 31880 39626 - 39651 This dual accessory drive has a small square upper accessory drive equipped with a 16 tooth involute spline drive and a large square lower accessory drive equipped with a 6 tooth square spline drive. Includes all parts required to install the dual accessory drive.	1
GIMDA			410246	Housing - Dual accessory drive, assembly. (Early type) . . Used with dual accessory drive 410127. Read note under 412559 and "Dual Accessory Drive" on page 502. Includes bushings, studs, plugs and locating pin.	1
GIMEN	R-2334	17	412554	Housing - Dual accessory drive, assembly. (Late type). . . Used with dual accessory drives 412559, 412562 and 413485. Read note under "Dual Accessory Drive" on page 502. Includes bushings, studs, plugs and locating pin.	1
GIMFU	R-2336	17	64425	Bushing - Dual accessory drive intermediate shaft, front, standard size	1
GIMGI	R-2336	17	64425Y1	Bushing - Dual accessory drive intermediate shaft, front, .005" oversize O.D.	1
GIMHY	R-2336	17	64425Y2	Bushing - Dual accessory drive intermediate shaft, front, .010" oversize O.D.	1
GIMKU	R-2336	17	64425Y3	Bushing - Dual accessory drive intermediate shaft, front, .015" oversize O.D.	1
GIMME	R-2336	17	64425Y6	Bushing - Dual accessory drive intermediate shaft, front, .030" oversize O.D.	1
GIMOB	R-2338	17	64050	Bushing - Dual accessory drive idler gear, front, standard size.	1
GIMUT	R-2338	17	64050Y1	Bushing - Dual accessory drive idler gear, front, .005" oversize O.D.	1
GIMYK	R-2338	17	64050Y2	Bushing - Dual accessory drive idler gear, front, .010" oversize O.D.	1
GINDA	R-2338	17	64050Y3	Bushing - Dual accessory drive idler gear, front, .015" oversize O.D.	1
GINER	R-2338	17	64050Y6	Bushing - Dual accessory drive idler gear, front, .030" oversize O.D.	1
GINGO	R-2340	17	64053	Bushing - Accessory drive gear upper, front, standard size	1
GINHI	R-2340	17	64053Y1	Bushing - Accessory drive gear upper, front, .005" oversize O.D.	1
GINKZ	R-2340	17	64053Y2	Bushing - Accessory drive gear upper, front, .010" oversize O.D.	1
GINLD	R-2340	17	64053Y3	Bushing - Accessory drive gear upper, front, .015" oversize O.D.	1
GINME	R-2340	17	64053Y6	Bushing - Accessory drive gear upper, front, .030" oversize O.D.	1
GINOX	R-2342	17	64120	Bushing - Accessory drive gear lower, front, standard size	1
GINPH	R-2342	17	64120Y1	Bushing - Accessory drive gear lower, front, .005" oversize O.D.	1
GINSK	R-2342	17	64120Y2	Bushing - Accessory drive gear lower, front, .010" oversize O.D.	1
GINTY	R-2342	17	64120Y3	Bushing - Accessory drive gear lower, front, .015" oversize O.D.	1
GINUG	R-2342	17	64120Y6	Bushing - Accessory drive gear lower, front, .030" oversize O.D.	1
GINYD	R-2344	17	2028H21	Stud - Dual accessory drive housing thru dual accessory drive housing cover to upper accessory drive, .003" oversize (1/4" - 20 - 28 x 2 1/8").	3
GINZL	R-2344	17	2028S21	Stud - Dual accessory drive housing thru dual accessory drive housing cover to upper accessory drive, .007" oversize (1/4" - 20 - 28 x 2 1/8").	3

ACCESSORY DRIVES - Cont'd

Code Word	Reference Number	Figure Number	Part Number	Description of Part	Number Used
				DUAL ACCESSORY DRIVE - Cont'd	
GIOBA	R-2344	17	2028J21	Stud - Dual accessory drive housing thru dual accessory drive housing cover to upper accessory drive, .012" oversize (1/4" - 20 - 28 x 2 1/8").	3
GIOCO	R-2346	17	2030H61	Stud - Dual accessory drive housing thru dual accessory drive housing cover to lower accessory drive, .003" oversize (5/16" - 18 - 24 x 2 5/16").	3
GIODY	R-2346	17	2030S61	Stud - Dual accessory drive housing thru dual accessory drive housing cover to lower accessory drive, .007" oversize (5/16" - 18 - 24 x 2 5/16").	3
GIOEK	R-2346	17	2030J61	Stud - Dual accessory drive housing thru dual accessory drive housing cover to lower accessory drive, .012" oversize (5/16" - 18 - 24 x 2 5/16").	3
GIOGU	R-2348	17	2029H22	Stud - Dual accessory drive housing to dual accessory drive housing cover, .003" oversize (5/16" - 18 - 24 x 1 3/4").	1
GIOHE	R-2348	17	2029S22	Stud - Dual accessory drive housing to dual accessory drive housing cover, .007" oversize (5/16" - 18 - 24 x 1 3/4").	1
GIOIS	R-2348	17	2029J22	Stud - Dual accessory drive housing to dual accessory drive housing cover, .012" oversize (5/16" - 18 - 24 x 1 3/4").	1
GIOLD	R-2350	17	2029H19	Stud - Dual accessory drive housing to supercharger rear cover, .003" oversize (5/16" - 18 - 24 x 2 1/16") . .	2
GIOMT	R-2350	17	2029S19	Stud - Dual accessory drive housing to supercharger rear cover, .007" oversize (5/16" - 18 - 24 x 2 1/16") . .	2
GIOOZ	R-2350	17	2029J19	Stud - Dual accessory drive housing to supercharger rear cover, .012" oversize (5/16" - 18 - 24 x 2 1/16") . .	2
GIORP	R-2352	17	102D33	Plug - Dual accessory drive housing oil hole, headless (1/4" - 28) Quantities used: With late type dual accessory drives 412559, 412562 and 413485 - 1; with early type dual accessory drive 410127	2
GIOSK	R-2354	17	99D12	Plug - Dual accessory drive housing oil hole, square head (1/4" - 28)	2
				Used with late type dual accessory drives 412559, 412562 and 413485.	
GIOTE	R-2356	17	29D10	Pin - Dual accessory drive housing cover locating (1/4" x 1/2")	2
GIOVU			64041	Shaft - Dual accessory drive intermediate (15 teeth) (1.687:1 ratio)	1
GIOWA	R-2358	17	68221	Shaft - Dual accessory drive intermediate (14 teeth) (1.500:1 ratio)	1
GIOXD			66413	Gear - Accessory drive, upper (18 teeth) (internal spline 16 teeth)	1
				Used with dual accessory drives 410127, 412559 and 412562.	
GIPAX	R-2360	17	110169	Gear - Accessory drive, upper (18 teeth) (internal spline 12 teeth)	1
				Used with dual accessory drive 413485.	
GIPBO	R-2362	17	64029	Gear - Dual accessory drive idler (36 teeth)	1
GIPCI			64028	Gear - Dual accessory drive intermediate (20 teeth) (1.687:1 ratio)	1
GIPDU	R-2364	17	68222	Gear - Dual accessory drive intermediate (21 teeth) (1.500:1 ratio)	1
GIPEN	R-2366	17	65D15	Screw - Dual accessory drive idler gear to intermediate gear (1/4" - 28 x 3/8")	6
GIPOD			64031	Gear - Accessory drive, lower (18 teeth) (6 tooth square internal spline).	1
				Used with dual accessory drives 410127, 412559 and 412562.	
GIPUL	R-2368	17	110169	Gear - Accessory drive, lower (18 teeth) (internal spline 12 teeth)	1
				Used with dual accessory drive 413485.	
GIPYK	R-2370	17	69655	Coupling - Accessory drive, upper (12 teeth)	1
				Used for the following engines equipped with dual accessory drive 413485: 29349 - 29404 31851	
GIRAZ	R-2372	17	67490	Lock Ring - Accessory drive upper coupling	1
				Used with coupling 69655.	
GIRBE			410082	Cover - Dual accessory drive housing, assembly. (Early type)	1
				Used with the early type dual accessory drive 410127. Read note under "Dual Accessory Drive" on page 502.	

ACCESSORY DRIVES - Cont'd

Code Word	Reference Number	Figure Number	Part Number	Description of Part	Number Used
				DUAL ACCESSORY DRIVE - Cont'd	
GIRCO	R-2374	17	412336	Cover - Dual accessory drive housing, assembly. (Late type)	1
				Used with the late type dual accessory drives 412559, 412562 and 413485. Read note under " Dual Accessory Drive" on page 502.	
GIRDY	R-2376	17	64050	Bushing - Dual accessory drive idler gear, rear, standard size.	1
GIREF	R-2376	17	64050Y1	Bushing - Dual accessory drive idler gear, rear, .005" oversize O.D.	1
GIRGL	R-2376	17	64050Y2	Bushing - Dual accessory drive idler gear, rear, .010" oversize O.D.	1
GIRIS	R-2376	17	64050Y3	Bushing - Dual accessory drive idler gear, rear, .015" oversize O.D.	1
GIRKU	R-2376	17	64050Y6	Bushing - Dual accessory drive idler gear, rear, .030" oversize O.D.	1
GIRLD	R-2378	17	64051	Bushing - Dual accessory drive intermediate shaft, rear, standard size	1
GIRMS	R-2378	17	64051Y1	Bushing - Dual accessory drive intermediate shaft, rear, .005" oversize O.D.	1
GIROX	R-2378	17	64051Y2	Bushing - Dual accessory drive intermediate shaft, rear, .010" oversize O.D.	1
GIRUF	R-2378	17	64051Y3	Bushing - Dual accessory drive intermediate shaft, rear, .015" oversize O.D.	1
GIRYP	R-2378	17	64051Y6	Bushing - Dual accessory drive intermediate shaft, rear, .030" oversize O.D.	1
GISBO	R-2380	17	66414	Bushing - Accessory drive gear upper and lower, rear, standard size	2
GISCA	R-2380	17	66414Y1	Bushing - Accessory drive gear upper and lower, rear, .005" oversize O.D.	2
GISDI	R-2380	17	66414Y2	Bushing - Accessory drive gear upper and lower, rear, .010" oversize O.D.	2
GISEM	R-2380	17	66414Y3	Bushing - Accessory drive gear, upper and lower, rear, .015" oversize O.D.	2
GISGY	R-2380	17	66414Y6	Bushing - Accessory drive gear, upper and lower, rear, .030" oversize O.D.	2
GISHU	R-2382	17	126H177	Stud - Dual accessory drive housing cover to lower accessory drive, .003" oversize (5/16" - 24 x 3/8" - 16 x 1 1/4").	1
GISIT	R-2382	17	126S177	Stud - Dual accessory drive housing cover to lower accessory drive, .007" oversize (5/16" - 24 x 3/8" - 16 x 1 1/4").	1
GISKS	R-2382	17	126J177	Stud - Dual accessory drive housing cover to lower accessory drive, .012" oversize (5/16" - 24 x 3/8" - 16 x 1 1/4").	1
GISLT	R-2384	17	126H169	Stud - Dual accessory drive housing cover to upper accessory drive, .003" oversize (1/4" - 28 x 5/16" - 18 x 1 1/4")	1
GISON	R-2384	17	126S169	Stud - Dual accessory drive housing cover to upper accessory drive, .007" oversize (1/4" - 28 x 5/16" - 18 x 1 1/4")	1
GISUD	R-2384	17	126J169	Stud - Dual accessory drive housing cover to upper accessory drive, .012" oversize (1/4" - 28 x 5/16" - 18 x 1 1/4")	1
GISYK	R-2386	17	102D33	Plug - Dual accessory drive housing cover oil hole, headless (1/4" - 28) Quantities used: With early type dual accessory drive 410127 - 3; with late type dual accessory drives 412559, 412562 and 413485.	2
GITAM	R-2388	17	2105D1	Plug - Dual accessory drive housing cover oil hole, square head, pipe (1/8")	2
				Used with late type dual accessory drives 412559, 412562 and 413485.	
GITBY	R-2390	17	69756	Gasket - Dual accessory drive housing cover to dual accessory drive housing.	1
GITCO	R-2392	17	28922	Cover - Accessory drive, upper	1
GITDI	R-2394	17	69072	Gasket - Accessory drive upper cover	1
GITEL	R-2396	17	2D1	Nut - Accessory drive upper cover (1/4" - 28).	4
GITGU			34D51	Washer - Accessory drive upper cover (17/64" x 1/2" x 3/64").	4
GITIK			2000D1	Lock - Accessory drive upper cover, palnut (1/4" - 28)	4
GITOM	R-2398	17	23329	Cover - Accessory drive, lower	1
GITUS	R-2400	17	64130	Gasket - Accessory drive lower cover	1
GITYP	R-2402	17	2D4	Nut - Accessory drive lower cover (5/16" - 24)	4
GIVZA			34D33	Washer - Accessory drive lower cover (21/64" x 5/8" x 1/16").	4
GIUBY			2000D2	Lock - Accessory drive lower cover, palnut (5/16" - 24).	4

ACCESSORY DRIVES - Cont'd

DUAL ACCESSORY DRIVE - Cont'd

Code Word	Reference Number	Figure Number	Part Number	Description of Part	Number Used
GIUCA	R-2404	17	66201	Gasket - Dual accessory drive housing to supercharger rear cover.	1
GIUDO	R-2406	17	124D82	Nut - Dual accessory drive housing to supercharger rear cover (5/16" - 24 x 1 9/32" long, drilled).	2
GIUEG	R-2408	17	124D81	Nut - Dual accessory drive housing to supercharger rear cover (5/16" - 24 x 11/32" long, drilled) Quantities used: With early type dual accessory drive 410127 - 3; with late type dual accessory drives 412559, 412562 and 413485.	2
GIUHI			124D112	Nut - Dual accessory drive housing to supercharger rear cover (5/16" - 24). Used with late type dual accessory drives 412559, 412562 and 413485.	1
GIUKL	R-2412	17	1D4	Nut - Dual accessory drive housing to supercharger rear cover, slotted (5/16" - 24)	2
GIUMS	R-2414	17	2D4	Nut - Dual accessory drive housing to supercharger rear cover, plain (5/16" - 24)	1
GIUNT	R-2416	17	124D58	Nut - Dual accessory drive housing thru supercharger rear housing to supercharger rear cover, acorn (5/16" - 24)	2
GIUOZ			27D159	Washer - Dual accessory drive housing to supercharger rear cover (29/64" x 3/4" x 1/16")	5
GIUPH			34D33	Washer - Dual accessory drive housing to supercharger rear cover (21/64" x 5/8" x 1/16")	3
GIURI			27D107	Washer - Dual accessory drive housing thru supercharger rear cover to supercharger rear housing (21/64" x 9/16" x 1/32").	2
GIUSK			2000D2	Lock - Dual accessory drive housing to supercharger rear cover, palnut (5/16" - 24).	1

Code Word	Reference Number	Figure Number	Part Number	Description of Part	Number Used

CRANKSHAFT, PROPELLER SHAFT AND REDUCTION GEAR

CRANKSHAFT

Worn crankpins can be reground to .010" undersize.

GIVRI			414008	Crankshaft	1
				Used for the following engines which breathe thru the crankcase: 27880 29345 - 29346 39626 - 39651 28293 29441 - 29442 39656 - 39657 28299 - 28304 31429 - 31850	
				Includes: Counterweight Rear end and counterweight bushings Counterweight pins Starter shaft coupling Crankpin plug Crankcheek capscrew Reduction gear aligning pin	
GIVSL	R-2442	18	414233	Crankshaft	1
				Used for the following engines which breathe thru the crankshaft: 29347 - 29348 29395 - 29407 31851 29350 - 29374 31723 - 31828	
				Includes: Counterweight Rear end and counterweight bushings Counterweight pins Starter shaft coupling Crankpin plug Crankcheek capscrew Breather support Reduction gear aligning pin	
GIVTO	R-2444	18	20D9	Pin - Crankshaft to reduction gear aligning (3/16" x 3/8")	1
GIVVA	R-2446	18	2084D3	Plug - Crankpin front.	1
GIVWI	R-2448	18	2128D4	Screw - Crankpin oil metering and front plug locking (5/16" - 24 x 1 3/16") #51 (.067") drilled.	1
GIVXN	R-2450	18	2067D2	Lock - Crankpin oil metering and front plug locking screw, tab	1
GIVYB	R-2452	18	65468	Capscrew - Crankcheek.	1
GIVZU	R-2454	18	34D39	Washer - Crankcheek capscrew (1 9/64" x 1 9/16" x 5/32") .	1
GIWAC	R-2456	18	111205	Bushing - Crankshaft front counterweight	4
GIWBO	R-2458	18	111203	Bushing - Crankshaft rear counterweight.	4
GIWCI	R-2460	18	111204	Bushing - Crankshaft front end	2
GIWDN	R-2462	18	111207	Bushing - Crankshaft rear end.	2
GIWEM	R-2464	18	111206	Bearing - Crankshaft rear end bushing.	2
GIWFY	R-2466	18	68778	Pin - Crankshaft front and rear counterweight.	4
GIWGE	R-2468	18	67466	Stop - Crankshaft front counterweight.	1
GIWIL	R-2470	18	67460	Stop - Crankshaft rear counterweight	1
GIWKU	R-2472	18	82D16	Bolt - Crankshaft front counterweight stop (3/8" - 24 x 1 1/2")	2
GIWMN	R-2474	18	82D15	Bolt - Crankshaft rear counterweight stop (3/8" - 24 x 2 1/64").	2
GIWOR	R-2476	18	2101D5	Nut - Crankshaft front counterweight stop bolt (3/8" - 24)	2
GIWPH	R-2478	18	1D7	Nut - Crankshaft rear counterweight stop bolt (3/8" - 24).	2
GIWRS	R-2480	18	67367	Coupling - Accessory drive and starter shaft	1
GIWTZ	R-2482	18	66109	Support - Crankshaft breather.	1
				Used with crankshaft 414233.	
GIWUG	R-2484	18	2067D8	Lock - Crankshaft breather support, tab.	1
				Used with crankshaft 414233.	
GIWYD	R-2486	18	2075D14	Screw - Crankshaft breather support lock (7/16" - 20 x 5/8")	1
				Used with crankshaft 414233.	
GIWZI			66531	Plug - Crankshaft breather hole.	1
				Used with crankshaft 414008.	
GIXBO			2067D9	Lock - Crankshaft breather hole plug screw, tab.	1
				Used with crankshaft 414008.	
GIXCA			2075D14	Screw - Crankshaft breather hole plug lock (7/16" - 20 x 5/8")	1
				Used with crankshaft 414008.	
GIXDU	R-2488	18	410596	Tube - Crankshaft breather, assembly	1
				Used with crankshaft 414233.	
GIXEN	R-2490	18	28843	Gasket - Crankshaft breather tube rear or hydro oil connection adapter	1
				Used between the breather tube or the hydro oil connection adapter and the propeller shaft sleeve.	

CRANKSHAFT, PROPELLER SHAFT AND REDUCTION GEAR - Cont'd

Code Word	Reference Number	Figure Number	Part Number	Description of Part	Number Used
				CRANKSHAFT - Cont'd	
GIXFY	R-2492	18	155D49	Bearing - Crankshaft main, front	1
GIXGR	R-2494	18	155D50	Bearing - Crankshaft main, rear	1
GIXHL	R-2496	18	67366	Nut - Crankshaft rear main bearing	1
GIXIK	R-2498	18	2075D16	Screw - Crankshaft rear main bearing nut, lock (#12 - 24 x 31/64")	1
GIXOM	R-2500	18	2067D12	Lockwasher - Crankshaft rear main bearing nut lock screw (7/32" I.D.)	1
				PROPELLER SHAFT AND REDUCTION GEAR	
GIYPH	R-2526	19	414391	Shaft - Propeller, assembly (3:2 ratio)	1
				Used for the following engines: 27880 29350 - 29374 31851 28295 29395 - 29401 39626 - 39651 28299 - 28304 29405 - 29407 39656 - 39657 29343 - 29346 29441 - 29442 29348 31723 - 31850	
				The splines on this propeller shaft are stamped with numbers from one to sixteen in the direction of propeller rotation to provide for various propeller timings. Some of the above engines were equipped with shaft 413209 which does not have the splines stamped but has a propeller hub locating pin assembled between two splines at the front end of the shaft. Shaft 413209 is no longer supplied. For replacement, use shaft 414391.	
				Includes: Front and rear bushings Reduction gear drive pinion bushings Sleeve	
GIYRO	R-2528	20	411971	Shaft - Propeller, assembly (16:9 ratio)	1
				Used for the following engines: 29347 29402 - 29404	
				Includes: Front and rear bushings Propeller hub locating pin Sleeve	
GIYSI	R-2530	19,20	69030	Sleeve - Propeller shaft	1
GIYTU	R-2532	19,20	66112	Bushing - Propeller shaft, front	1
GIYVE	R-2534	19,20	27D156	Washer - Propeller shaft front bushing (2 9/16" x 2 51/64" x 1/32")	1
GIYYN	R-2536	19	66113	Bushing - Propeller shaft, rear	1
				Used with 3:2 ratio propeller shafts.	
GIZAN	R-2538	20	110276	Bushing - Propeller shaft, rear	1
				Used with 16:9 ratio propeller shaft.	
GIZBY	R-2540	19	2077D20	Pin - Propeller shaft rear bushing (1/4" x 25/32")	1
				Used with 3:2 ratio propeller shafts.	
GIZCO	R-2542	20	20D12	Pin - Propeller shaft rear bushing (3/16" x 1/2") standard size	1
				Used with 16:9 ratio propeller shaft.	
GIZDU	R-2542	20	20H12	Pin - Propeller shaft rear bushing, .002" oversize	1
				Used with 16:9 ratio propeller shaft.	
GIZET	R-2542	20	20S12	Pin - Propeller shaft rear bushing, .010" oversize	1
				Used with 16:9 ratio propeller shaft.	
GIZIK	R-2542	20	20J12	Pin - Propeller shaft rear bushing, .015" oversize	1
				Used with 16:9 ratio propeller shaft.	
GIZKO	R-2544	20	26085	Pin - Propeller hub locating	1
				Used with propeller shafts 413209 and 411971.	
GIZLA	R-2546	19,20	67029	Gasket - Crankshaft breather tube, front	1
				Used with crankshaft 414233 between the breather tube and the hydro oil connection.	
GIZMI	R-2548	19,20	68135	Connection - Propeller shaft hydro oil	1
				Used with crankshaft 414233.	
GIZNE			68529	Adapter - Propeller shaft hydro oil connection	1
				Used with crankshaft 414008.	
GIZOD			66251	Gasket - Propeller shaft hydro oil connection adapter	1
				Used with crankshaft 414008.	

CRANKSHAFT, PROPELLER SHAFT AND REDUCTION GEAR - Cont'd

Code Word	Reference Number	Figure Number	Part Number	Description of Part	Number Used
				PROPELLER SHAFT AND REDUCTION GEAR - Cont'd	
GIZPH			68530	Cover - Propeller shaft hydro oil connection	1
				Used with crankshaft 414008.	
GIZRY	R-2550	19,20	2126D1	Plug - Propeller shaft hydro oil connection (5/8" - 18). .	1
				Used with crankshaft 414233.	
GIZSI	R-2552	19,20	23D16	Gasket - Propeller shaft hydro oil connection plug	1
				Used with crankshaft 414233.	
GIZTZ	R-2554	19,20	28642	Nut - Crankshaft breather tube or hydro oil connection cover	1
GIZUB	R-2556	19,20	67311	Screen - Crankshaft breather	1
				Used with crankshaft 414233.	
GIZVI			68533	Lock - Propeller shaft hydro oil connection cover.	1
				Used with crankshaft 414008.	
GIZWA	R-2558	19,20	86D11	Screw - Crankshaft breather screen or propeller shaft hydro oil connection cover to nut (#10 - 32 x 5/16").	3
GLACE			27D30	Washer - Crankshaft breather screen or propeller shaft hydro oil connection cover to nut (13/64" x 5/16" x 1/32").	3
GLANO	R-2560	19	110298	Bushing - Reduction gear drive pinion.	6
				Used with 3:2 ratio propeller shafts.	
GLATU	R-2562	20	110117	Bushing - Reduction gear drive pinion.	20
				Used with 16:9 ratio propeller shaft.	
GLOBE	R-2564	19	2077D9	Pin - Reduction gear drive pinion bushing (7/32" x 11/32")	6
				Used with 3:2 ratio propeller shafts.	
GLORY	R-2566	20	69634	Carrier - Reduction gear drive pinion.	1
				Used with 16:9 ratio propeller shaft.	
GLOSS	R-2568	20	2069D6	Bolt - Reduction gear drive pinion carrier to propeller shaft (1/2" - 20 x 1 1/8").	24
				Used with 16:9 ratio propeller shaft.	
GNAAT	R-2570	20	2101D7	Nut - Reduction gear drive pinion carrier to propeller shaft (1/2" - 20)	24
				Used with 16:9 ratio propeller shaft.	
GNABE	R-2572	19	65290	Pinion - Reduction gear drive.	6
				Used with 3:2 ratio propeller shafts.	
GNACO	R-2574	20	69632	Pinion - Reduction gear drive.	20
				Used with 16:9 ratio propeller shaft.	
GNADI	R-2576	20	66733	Bolt - Reduction gear drive pinion to pinion carrier . . .	20
				Used with 16:9 ratio propeller shaft.	
GNAEP	R-2578	19	69363	Nut - Reduction gear drive pinion lock	6
				Used with 3:2 ratio propeller shafts.	
GNAFY	R-2580	20	2101D4	Nut - Reduction gear drive pinion bolt (5/16" - 24). . . .	20
				Used with 16:9 ratio propeller shaft.	
GNAGU	R-2582	19	64621	Ring - Reduction gear pinion guard	1
				Used with 3:2 ratio propeller shafts.	
GNAHL	R-2584	20	66757	Ring - Reduction gear pinion guard	1
				Used with 16:9 ratio propeller shaft.	
GNAIS	R-2586	19	68375	Gear - Reduction driving (3:2 ratio)	1
GNAKZ	R-2588	20	68508	Gear - Reduction driving (16:9 ratio).	1
GNALM	R-2590	19,20	28778	Nut - Reduction driving gear	1
GNANT	R-2592	19,20	2075D7	Screw - Reduction driving gear nut, lock (#8 - 32 x 27/64")	1
GNAOG	R-2594	19,20	68414	Spacer - Reduction driving gear.	1
GNAPH	R-2596	19,20	5015D12	Ring - Reduction driving gear spacer, standard size. . . .	2
GNARX	R-2596	19,20	5015H12	Ring - Reduction driving gear spacer, .005" oversize O.D .	2
GNASY	R-2596	19,20	5015S12	Ring - Reduction driving gear spacer, .010" oversize O.D .	2
GNATI	R-2598	19	411549	Gear - Stationary reduction, assembly (3:2 ratio).	1
				Includes plug.	
GNAUC	R-2600	20	412664	Support - Stationary reduction gear, assembly.	1
				Used with 16:9 ratio propeller shaft.	
				Includes sleeve, pin and plugs.	

CRANKSHAFT, PROPELLER SHAFT AND REDUCTION GEAR - Cont'd

Code Word	Reference Number	Figure Number	Part Number	Description of Part	Number Used
				PROPELLER SHAFT AND REDUCTION GEAR - Cont'd	
GNAVE	R-2602	20	2077D24	Pin - Stationary reduction gear support sleeve dowel (1/4" x 1 21/64")	1
				Used with 16:9 ratio propeller shaft.	
GNAWK			102D12	Plug - Stationary reduction gear oil retaining (5/16" - 24)	1
				Used with 16:9 ratio propeller shaft.	
GNAXM			102D13	Plug - Stationary reduction gear oil retaining (3/8" - 24)	1
				Used with 16:9 ratio propeller shaft.	
GNAYA	R-2608	20	66636	Gear - Stationary reduction (16:9 ratio)	1
GNAZO	R-2610	19	64075	Bolt - Stationary reduction gear to crankcase front section	8
				Used with 3:2 ratio propeller shafts.	
GNEAL	R-2612	19	124D75	Nut - Stationary reduction gear to crankcase front section stud (3/8" - 24)	2
				Used with 3:2 ratio propeller shafts.	
GNEBO	R-2614	19	66116	Spacer - Propeller shaft thrust bearing, standard size	1
				Used with 3:2 ratio propeller shafts.	
GNECI	R-2614	19	66116Y1	Spacer - Propeller shaft thrust bearing, .003" undersize I.D	1
				Used with 3:2 ratio propeller shafts.	
GNEDU	R-2616	20	69560	Spacer - Propeller shaft thrust bearing, standard size	1
				Used with 16:9 ratio propeller shaft.	
GNEEK	R-2616	20	69560Y1	Spacer - Propeller shaft thrust bearing, .003" undersize I.D	1
				Used with 16:9 ratio propeller shaft.	
GNEFT	R-2618	19,20	5015D3	Ring - Propeller shaft thrust bearing spacer, oil seal, standard size	6
GNEGN	R-2618	19,20	5015H3	Ring - Propeller shaft thrust bearing spacer, oil seal, .005" oversize O.D.	6
GNEHL	R-2618	19,20	5015S3	Ring - Propeller shaft thrust bearing spacer, oil seal, .010" oversize O.D.	6
GNEIW	R-2620	19,20	21D80	Bearing - Propeller shaft thrust ball	1
GNEKZ	R-2622	19,20	67497	Nut - Propeller shaft thrust ball bearing	1
GNELL	R-2624	19,20	63630	Ring - Propeller shaft thrust ball bearing nut, oil seal, standard size	3
GNEMY	R-2624	19,20	63630Y10	Ring - Propeller shaft thrust ball bearing nut, oil seal, .005" oversize on width	3
GNENS	R-2624	19,20	63630Y30	Ring - Propeller shaft thrust ball bearing nut, oil seal, .010" oversize on width	3

Code Word	Reference Number	Figure Number	Part Number	Description of Part	Number Used

CONNECTING RODS

GNICA	R-2650	21	411263Y1	Rod - Master, complete	1
				Includes: Crankshaft bearing Piston pin bushing	
GNIDI	R-2652	21	67297	Bearing - Master rod crankshaft, standard size	1
GNIEL	R-2652	21	67297Y1	Bearing - Master rod crankshaft, standard I.D., .002" oversize O.D.	1
GNIFT	R-2652	21	67297Y2	Bearing - Master rod crankshart, standard I.D., .005" oversize O.D.	1
GNIGS	R-2652	21	67297Y3	Bearing - Master rod crankshaft, standard I.D., .010" oversize O.D.	1
GNIHU	R-2652	21	67297Y15	Bearing - Master rod crankshaft, .015" undersize I.D., standard O.D.	1
				This .015" undersize bearing is suitable for finishing to any undersize up to and including .015". *However, for engines listed in this catalog, the maximum allowable undersize is .010".* See note under "Crankshaft" at top of page 601, relative to crankshaft regrinding.	
GNIKO	R-2652	21	67297Y16	Bearing - Master rod crankshaft, .015" undersize I.D., .002" oversize O.D.	1
				Read note under 67297Y15.	
GNILD	R-2652	21	67297Y17	Bearing - Master rod crankshaft, .015" undersize I.D., .005" oversize O.D.	1
				Read note under 67297Y15.	
GNIMY	R-2652	21	67297Y18	Bearing - Master rod crankshaft, .015" undersize I.D., .010" oversize O.D.	1
				Read note under 67297Y15.	
GNINE	R-2654	21	48672	Rod - Articulated, with bushings	8
GNIOZ	R-2656	21	2119D17	Bushing - Master and articulated rod piston pin.	9
GNIPH	R-2658	21	2119D12	Bushing - Articulated rod knuckle pin.	8
GNIRL	R-2660	21	69116	Pin - Articulated rod knuckle.	8
GNISA	R-2662	21	68154	Plate - Articulated rod knuckle pin locking.	1
GNITZ	R-2664	21	2045D24	Screw - Articulated rod knuckle pin lock (7/16" - 20 x 13/16")	8
GNIUG	R-2666	21	67860	Lock - Articulated rod knuckle pin lock screw.	8
GNIWK	R-2668	21	67843	Spacer - Master rod, standard size	1
GNIXN	R-2668	21	67843Y1	Spacer - Master rod, .005" oversize at bearing face. . . .	1
GNIYB	R-2668	21	67843Y2	Spacer - Master rod, .010" oversize at bearing face. . . .	1
GNIZM	R-2670	21	110516	Disc - Master rod oil seal, standard size	1
GNOBA	R-2670	21	110516Y1	Disc - Master rod oil seal, .005" oversize at bearing face	1
GNOCO	R-2670	21	110516Y2	Disc - Master rod oil seal, .010" oversize at bearing face	1
GNODI	R-2672	21	67302	Spring - Master rod oil seal disc.	1

Code Word	Reference Number	Figure Number	Part Number	Description of Part	Number Used

CYLINDERS, INTAKE PIPES, PISTONS AND AIR DEFLECTORS

CYLINDERS

Cylinders with valves and valve rockers as supplied do not include rocker box covers or gaskets.

Worn cylinders can be reground to .015" oversize only.

GNUEK	R-2704	22	414565N3	Cylinder - With studs.	9

Includes valve seats, valve guides, spark plug inserts, push rod housing hose connections, studs, rocker hub bolt bushings and screw bushings.

Furnished complete with valves and valve rockers as follows:

Code Word	*Part Number*	*Name*
GNUFA	89979N3	Cylinder - With valves and valve rockers

GNUGO			110080	Seat - Exhaust valve, standard size.	9

The standard size seat is catalogued for reference only. For all replacements, use oversize seats.

GNUHI			110080Y2	Seat - Exhaust valve, .010" oversize	9
GNUKY			110080Y3	Seat - Exhaust valve, .020" oversize	9
GNULN			110080Y4	Seat - Exhaust valve, .030" oversize.	9
GNUME			110080Y5	Seat - Exhaust valve, .040" oversize	9
GNUOD			110046	Seat - Intake valve, standard size	9

The standard size seat is catalogued for reference only. For all replacements, use oversize seats.

GNUPH			110046Y2	Seat - Intake valve, .010" oversize.	9
GNURS			110046Y3	Seat - Intake valve, .020" oversize.	9
GNUTZ			110046Y4	Seat - Intake valve, .030" oversize.	9
GNUVU			110046Y5	Seat - Intake valve, .040" oversize.	9
GNUWT			62497	Insert - Spark plug, standard size	18
GNUYL			62497Y3	Insert - Spark plug, .015" oversize.	18
GNUZN			62497Y4	Insert - Spark plug, .030" oversize.	18
GNYBI			13D38	Pin - Spark plug insert (1/8" x 1/2").	36
GNYCA	R-2706	22	68590	Connection - Cylinder head push rod housing hose	18
GNYDO	R-2708	22	2145H95	Stud - Cylinder to exhaust pipe flange, .003" oversize (5/16" - 24 x 3/8" - 16 x 61/64")	36
GNYFT	R-2708	22	2145S95	Stud - Cylinder to exhaust pipe flange, .007" oversize (5/16" - 24 x 3/8" - 16 x 61/64")	36
GNYGU	R-2708	22	2145J95	Stud - Cylinder to exhaust pipe flange, .012" oversize (5/16" - 24 x 3/8" - 16 x 61/64")	36
GNYLD	R-2710	22	2136H65	Stud - Cylinder to rocker box cover, .003" oversize (1/4" - 28 x 5/16" - 18 x 1 1/4")	72
GNYMS	R-2710	22	2136S65	Stud - Cylinder to rocker box cover, .007" oversize (1/4" - 28 x 5/16" - 18 x 1 1/4")	72
GNYOF	R-2710	22	2136J65	Stud - Cylinder to rocker box cover, .012" oversize (1/4" - 28 x 5/16" - 18 x 1 1/4")	72
GNYPH	R-2712	22	2146H55	Stud - Cylinder to cowl, .003" oversize (5/16" - 24 x 3/8" - 16 x 1 1/8")	36
GNYRL	R-2712	22	2146S55	Stud - Cylinder to cowl, .007" oversize (5/16" - 24 x 3/8" - 16 x 1 1/8")	36
GNYST	R-2712	22	2146J55	Stud - Cylinder to cowl, .012" oversize (5/16" - 24 x 3/8" - 16 x 1 1/8")	36
GNYUV	R-2714	22	4016H3	Bushing - Intake pipe flange, screw, .003" oversize (1" long, blind end).	9
GNYXI	R-2714	22	4016S3	Bushing - Intake pipe flange, screw, .007" oversize (1" long, blind end).	9
GNYZA	R-2714	22	4016J3	Bushing - Intake pipe flange, screw, .012" oversize (1" long, blind end).	9
GOACI	R-2716	22	4015H3	Bushing - Intake pipe flange, screw, .003" oversize (23/32" long, open end)	18
GOADO	R-2716	22	4015S3	Bushing - Intake pipe flange, screw, .007" oversize (23/32" long, open end)	18
GOAET	R-2716	22	4015J3	Bushing - Intake pipe flange, screw, .012" oversize (23/32" long, open end)	18
GOAFU	R-2718	22	4028H2	Bushing - Cylinder head air deflector, screw, .003" oversize (13/16" long, blind end)	18
GOAGL	R-2718	22	4028S2	Bushing - Cylinder head air deflector, screw, .007" oversize (13/16" long, blind end)	18
GOAHA	R-2718	22	4028J2	Bushing - Cylinder head air deflector, screw, .012" oversize (13/16" long, blind end)	18
GOAIB	R-2720	22	4015H2	Bushing - Cylinder head air deflector, screw (at intake pipe flange) .003" oversize (21/32" long, open end). .	9
GOAKY	R-2720	22	4015S2	Bushing - Cylinder head air deflector, screw (at intake pipe flange) .007" oversize (21/32" long, open end) .	9
GOALD	R-2720	22	4015J2	Bushing - Cylinder head air deflector, screw (at intake pipe flange) .012" oversize (21/32" long, open end) .	9

CYLINDERS, INTAKE PIPES, PISTONS AND AIR DEFLECTORS - Cont'd

Code Word	Reference Number	Figure Number	Part Number	Description of Part	Number Used
				CYLINDERS - Cont'd	
GOAMN	R-2722	22	69510	Bushing - Rocker hub bolt.	36
GOAOG	R-2724	22	2105D1	Plug - Cylinder head primer connection hole, pipe (1/8")	9
GOAPH	R-2726	22	69184	Guide - Intake valve, standard size.	9
GOARK	R-2726	22	69184Y2	Guide - Intake valve, .005" oversize	9
GOAST	R-2726	22	69184Y3	Guide - Intake valve, .010" oversize	9
GOAUZ	R-2726	22	69184Y4	Guide - Intake valve, .020" oversize	9
GOAVA	R-2726	22	69184Y5	Guide - Intake valve, .030" oversize	9
GOAWC	R-2728	22	63747	Guide - Exhaust valve, standard size	9
GOAXE	R-2728	22	63747Y2	Guide - Exhaust valve, .005" oversize.	9
GOAYR	R-2728	22	63747Y3	Guide - Exhaust valve, .010" oversize.	9
GOAZI	R-2728	22	63747Y4	Guide - Exhaust valve, .020" oversize.	9
GOBAK	R-2728	22	63747Y5	Guide - Exhaust valve, .030" oversize.	9
GOBBY	R-2730	22	111513	Cover - Rocker box, intake (Extended type)	9
				Used for the following engines: 27880, 28293, 28299 - 28304, 29343 - 29348, 29395 - 29407, 29441 - 29442, 31723 - 31787, 31829 - 31850, 39626 - 39651, 39656 - 39657	
				Six units used on cylinders number 2, 3, 4, 6, 7 and 8 for the following engines: 29350 - 29374, 31788 - 31828, 31851	
GOBCI	R-2731	22	112011	Cover - Rocker box, intake (Non extended type)	3
				Used on cylinders number 1, 5 and 9 for the following engines: 29350 - 29374, 31788 - 31828, 31851	
GOBDO	R-2732	22	111514	Cover - Rocker box, exhaust (Extended type).	9
				Used for the following engines: 27880, 28293, 28299 - 28304, 29343 - 29348, 29395 - 29407, 29441 - 29442, 31723 - 31787, 31829 - 31850, 39626 - 39651, 39656 - 39657	
				Six units used on cylinders number 3, 4, 5, 7, 8 and 9 for the following engines: 29350 - 29374, 31788 - 31828, 31851	
GOBEK	R-2733	22	112012	Cover - Rocker box, exhaust (Non extended type).	3
				Used on cylinders number 1, 2 and 6 for the following engines: 29350 - 29374, 31851	
GOBFU	R-2734	22	69511	Gasket - Rocker box cover.	18
GOBGE	R-2736	22	124D95	Nut - Rocker box cover (1/4" - 28)	72
GOBIX			27D1	Washer - Rocker box cover (17/64" x 1/2" x 1/32").	72
GOBOL			28D14	Lockwasher - Rocker box cover (17/64" I.D.).	72
GOBUN	R-2738	22	25520	Ring - Cylinder oil seal	9
GOBYM	R-2740	22	2105D2	Plug - Rocker box oil tube boss, substituting, pipe (1/4").	18
GOCAK	R-2742	22	2045D11	Screw - Cylinder hold-down, cap, standard size (7/16" - 20 x 1").	180
GOCBO	R-2742	22	2045S11	Screw - Cylinder hold-down, cap, .007" oversize (7/16" - 20 x 1").	180
GOCCI	R-2742	22	2045J11	Screw - Cylinder hold-down, cap, .012" oversize (7/16" - 20 x 1").	180
GOCDU	R-2744	22	2093D14	Washer - Cylinder hold-down, spherical (.475" I.D.).	180
GOCER	R-2746	22	68538	Flange - Exhaust pipe.	9
GOCHY	R-2748	22	68562	Gasket - Exhaust pipe flange	9
GOCIT	R-2750	22	2D39	Nut - Exhaust pipe flange (5/16" - 24)	36
GOCLE			2000D2	Lock - Exhaust pipe flange, palnut (5/16" - 24).	36
				INTAKE PIPES	
GOEBI	R-2776	22	68539	Pipe - Intake.	9
GOECO	R-2778	22	68537	Flange - Intake pipe	9
GOEDY	R-2780	22	68560	Packing - Intake pipe flange	9
GOEEK	R-2782	22	68561	Gasket - Intake pipe flange.	9
GOEHU	R-2784	22	45D1	Screw - Intake pipe flange (5/16" - 24 x 1 3/16").	27
GOEIM			189D59	Lockwasher - Intake pipe flange, shakeproof (21/64" I.D.)	27
GOEKA	R-2786	22	68335	Packing - Intake pipe.	9
GOELD	R-2788	22	68336	Nut - Intake pipe packing.	9

CYLINDERS, INTAKE PIPES, PISTONS AND AIR DEFLECTORS - Cont'd

Code Word	Reference Number	Figure Number	Part Number	Description of Part	Number Used
				PISTONS	
				Two types of pistons have been used for Cyclone "G-200" engines; an early type having six plain compression rings and a late type having three wedge shaped compression rings installed in the top three grooves and three plain compression rings installed in the bottom three grooves. Only the late type is supplied for replacement. In both the early and late types the bottom ring is installed in an inverted position.	
				The compression ratio of pistons is stamped on the engine data plate.	
				Pistons are not sold without fitted rings.	
GOGAC			414402	Piston - Complete with rings, piston pin and retaining springs, standard size (6.3:1 compression ratio). . .	9
GOGBI			414402Y1	Piston - Complete with rings, piston pin and retaining springs, .015" oversize (6.3:1 compression ratio) . .	9
GOGEN	R-2814	22	415267	Piston - Complete with rings, piston pin and retaining springs, standard size (6.7:1 compression ratio). . .	9
GOGGA	R-2814	22	415267Y1	Piston - Complete with rings, piston pin and retaining springs, .015" oversize (6.7:1 compression ratio) . .	9
GOGHY			89957	Piston - With rings, standard size (6.3:1 compression ratio).	9
GOGIM			89957Y1	Piston - With rings, .015" oversize (6.3:1 compression ratio).	9
GOGYK			89984	Piston - With rings, standard size (6.7:1 compression ratio).	9
GOHAB			89984Y1	Piston - With rings, .015" oversize (6.7:1 compression ratio).	9
GOHCO	R-2816	22	68827	Pin - Piston	9
GOHDY	R-2818	22	110219	Spring - Piston pin retaining.	18
				PISTON RINGS - PLAIN	
				The quantities specified are for the late type pistons which use three plain rings per piston. The early type uses six plain rings per piston or fifty-four per engine.	
				Read note under "Pistons" at top of page.	
GOIEK	R-2844	22	68498	Ring - Piston, plain, standard size.	27
GOIFT	R-2844	22	68498Y1	Ring - Piston, plain, standard diameter, .002" oversize width	27
GOIGL	R-2844	22	68498Y2	Ring - Piston, plain, standard diameter, .004" oversize width	27
GOIIS	R-2844	22	68498Y3	Ring - Piston, plain, standard diameter, .006" oversize width	27
GOIKA	R-2844	22	68498Y4	Ring - Piston, plain, standard diameter, .008" oversize width	27
GOILN	R-2844	22	68498Y5	Ring - Piston, plain, standard diameter, .010" oversize width	27
GOIME	R-2844	22	68498Y6	Ring - Piston, plain, standard diameter, .002" undersize width	27
GOIOP	R-2844	22	68498Y7	Ring - Piston, plain, standard diameter, .004" undersize width	27
GOIRT	R-2844	22	68498Y8	Ring - Piston, plain, standard diameter, .006" undersize width	27
GOISH	R-2844	22	68498Y15	Ring - Piston, plain, .015" oversize diameter, standard width	27
GOITU	R-2844	22	68498Y16	Ring - Piston, plain, .015" oversize diameter, .002" oversize width.	27
GOIVY	R-2844	22	68498Y17	Ring - Piston, plain, .015" oversize diameter, .004" oversize width.	27
GOIWL	R-2844	22	68498Y18	Ring - Piston, plain, .015" oversize diameter, .006" oversize width.	27
GOIXD	R-2844	22	68498Y19	Ring - Piston, plain, .015" oversize diameter, .008" oversize width.	27
GOIZA	R-2844	22	68498Y20	Ring - Piston, plain, .015" oversize diameter, .010" oversize width.	27
GOKBE	R-2844	22	68498Y21	Ring - Piston, plain, .015" oversize diameter, .002" undersize width	27
GOKCO	R-2844	22	68496Y22	Ring - Piston, plain, .015" oversize diameter, .004" undersize width	27
GOKDY	R-2844	22	68498Y23	Ring - Piston, plain, .015" oversize diameter, .006" undersize width	27
GOKEG	R-2844	22	68498Y30	Ring - Piston, plain, .030" oversize diameter, standard width	27
GOKFU	R-2844	22	68498Y31	Ring - Piston, plain, .030" oversize diameter, .002" oversize on width	27
GOKHY	R-2844	22	68498Y32	Ring - Piston, plain, .030" oversize diameter .004" oversize on width	27

Code Word	Reference Number	Figure Number	Part Number	Description of Part	Number Used

CYLINDERS, INTAKE PIPES, PISTONS AND AIR DEFLECTORS - Cont'd

PISTON RINGS - PLAIN - Cont'd

GOKIL	R-2844	22	68498Y33	Ring - Piston, plain, .030" oversize diameter, .006" oversize on width	27
GOKOM	R-2844	22	68498Y34	Ring - Piston, plain, .030" oversize diameter, .008" oversize on width	27
GOKUT	R-2844	22	68498Y35	Ring - Piston, plain, .030" oversize diameter, .010" oversize on width	27
GOKYP	R-2844	22	68498Y36	Ring - Piston, plain, .030" oversize diameter, .002" undersize on width	27
GOLAC	R-2844	22	68498Y37	Ring - Piston, plain, .030" oversize diameter, .004" undersize on width	27
GOLBI	R-2844	22	68498Y38	Ring - Piston, plain, .030" oversize diameter, .006" undersize on width	27

PISTON RINGS - WEDGE SHAPED

Read note under "Pistons" on page 803.

GOMCA	R-2866	22	110633	Ring - Piston, plain, standard size	27
GOMDY	R-2866	22	110633Y1	Ring - Piston, plain, standard diameter, .002" oversize width	27
GOMEK	R-2866	22	110633Y2	Ring - Piston, plain, standard diameter, .004" oversize width	27
GOMFO	R-2866	22	110633Y3	Ring - Piston, plain, standard diameter, .006" oversize width	27
GOMGI	R-2866	22	110633Y4	Ring - Piston, plain, standard diameter, .008" oversize width	27
GOMHU	R-2866	22	110633Y5	Ring - Piston, plain, standard diameter, .010" oversize width	27
GOMIS	R-2866	22	110633Y6	Ring - Piston, plain, standard diameter, .002" undersize width	27
GOMOV	R-2866	22	110633Y7	Ring - Piston, plain, standard diameter, .004" undersize width	27
GOMUX	R-2866	22	110633Y8	Ring - Piston, plain, standard diameter, .006" undersize width	27
GOMYT	R-2866	22	110633Y15	Ring - Piston, plain, .015" oversize diameter, standard width	27
GONAB	R-2866	22	110633Y16	Ring - Piston, plain, .015" oversize diameter, .002" oversize width	27
GONCI	R-2866	22	110633Y17	Ring - Piston, plain, .015" oversize diameter, .004" oversize width	27
GONDO	R-2866	22	110633Y18	Ring - Piston, plain, .015" oversize diameter, .006" oversize width	27
GONER	R-2866	22	110633Y19	Ring - Piston, plain, .015" oversize diameter, .008" oversize width	27
GONGU	R-2866	22	110633Y20	Ring - Piston, plain, .015" oversize diameter, .010" oversize width	27
GONIL	R-2866	22	110633Y21	Ring - Piston, plain, .015" oversize diameter, .002" undersize width	27
GONOG	R-2866	22	110633Y22	Ring - Piston, plain, .015" oversize diameter, .004" undersize width	27
GONUP	R-2866	22	110633Y23	Ring - Piston, plain, .015" oversize diameter, .006" undersize width	27

INTER-CYLINDER AIR DEFLECTORS

GOOUL	R-2888	23	412607	Deflector - Inter-cylinder air, assembly (Except oil sump location) (Without cutouts for blast tubes)	5

Used with extended type rocker box covers.

Used between cylinders 3 and 4, 4 and 5, 6 and 7, 7 and 8, 8 and 9 for the following engines:

31788 - 31828

Four units used between cylinders 3 and 4, 4 and 5, 6 and 7, 7 and 8 for the following engines:

27080	29395 - 29407	39626 - 39651
28293	29441 - 29442	39656 - 39657
28299 - 28304	31723 - 31787	
29343 - 29348	31829 - 31850	

Four units used between cylinders 2 and 3, 4 and 5, 6 and 7, 7 and 8 for the following engines:

29350 - 29361 31851

Three units used between cylinders 4 and 5, 6 and 7, 7 and 8, for the following engines:

29362 - 29374

Includes straps, plates, clamps, rivets and screw.

CYLINDERS, INTAKE PIPES, PISTONS AND AIR DEFLECTORS - Cont'd

Code Word	Reference Number	Figure Number	Part Number	Description of Part	Number Used
				INTER-CYLINDER AIR DEFLECTORS - Cont'd	
GOOVI	R-2890	23	412606	Deflector - Inter-cylinder air, assembly (For magneto blast tube)	2
				Used with extended type rocker box covers.	
				Used between cylinders 2 and 3, 8 and 9 for the following engines: 27880, 28293, 28299 - 28304, 29343 - 29348, 29395 - 29407, 29441 - 29442, 31723 - 31787, 31829 - 31850, 39626 - 39651, 39656 - 39657	
				Used between cylinders 3 and 4, 8 and 9 for the following engines: 29350 - 29374, 31851	
				One unit used between cylinders 2 and 3 for the following engines: 31788 - 31828	
				Includes straps, plates, clamps, rivets and screws.	
GOOXE	R-2892	23	414714	Deflector - Inter-cylinder air, assembly (Cutout for fuel pump blast tube)	1
				Used with extended type rocker box covers.	
				Used between cylinders 2 and 3 for the following engines: 29362 - 29374	
				Includes straps, plates, clamps, rivets and screws.	
GOOYB	R-2894	23	412608	Deflector - Inter-cylinder air, assembly (Cutout to clear magneto conduit)	2
				Used with extended type rocker box covers.	
				Used between cylinders 1 and 2, 9 and 1 for the following engines: 27880, 28293, 28299 - 28304, 29343 - 29348, 29395 - 29407, 29441 - 29442, 31723 - 31787, 31829 - 31850, 39626 - 39651, 39656 - 39657	
				Includes straps, plates, clamps, rivets and screws.	
GOOZU	R-2896	23	412678	Deflector - Inter-cylinder air, assembly (At oil sump)	1
				Used with extended type rocker box covers.	
				Used between cylinder 5 and 6 for the following engines: 27880, 28293, 28299 - 28304, 29343 - 29348, 29395 - 29407, 29441 - 29442, 31723 - 31787, 31829 - 31850, 39626 - 39651, 39656 - 39657	
				Includes straps, plates, rivets and screws.	
GOPAC	R-2898	23	414305	Deflector - Inter-cylinder air, assembly (Cutout to clear magneto conduit)	1
				Used with non-extended type rocker box covers.	
				Used between cylinders 1 and 2 for the following engines: 29350 - 29361, 31851	
				Includes straps, plates, clamps, rivets and screws.	
GOPBI	R-2900	23	414846	Deflector - Inter-cylinder air, assembly (With cutouts for magneto blast tube and magneto conduit)	1
				Used with non-extended type rocker box covers.	
				Used between cylinders 1 and 2 for the following engines: 31788 - 31828	
				Includes straps, plates, clamps, rivets and screws.	
GOPCU	R-2902	23	415191	Deflector - Inter-cylinder air, assembly (With cutouts for magneto blast tube, magneto conduit and governor control cable)	1
				Used with non-extended type rocker box covers.	
				Used between cylinders 1 and 2 for the following engines: 29362 - 29374	
				Includes straps, plates, clamps, rivets and screws.	
GOPDY	R-2904	23	414313	Deflector - Inter-cylinder air, assembly (Cutout to clear magneto conduit)	1
				Used with non-extended type rocker box covers.	
				Used between cylinders 9 and 1 for the following engines: 29350 - 29374, 31788 - 31828, 31851	
				Includes straps, plates, clamps, rivets and screws.	

CYLINDERS, INTAKE PIPES, PISTONS AND AIR DEFLECTORS - Cont'd

Code Word	Reference Number	Figure Number	Part Number	Description of Part	Number Used
				INTER-CYLINDER AIR DEFLECTORS - Cont'd	
GOPEG	R-2906	23	412837	Deflector - Inter-cylinder air, assembly (At oil sump) . .	1
				Used with non-extended type rocker box covers.	
				Used between cylinders 5 and 6 for the following engines: 29550 - 29374 31783 - 31828 31851	
				Includes straps, plates, brace, rivets and screws.	
GOPIK			69524	Strap - Inter-cylinder air deflector buffer.	16
				Two units used with each deflector at all cylinders except oil sump location.	
GOPOP			69545	Strap - Inter-cylinder air deflector buffer.	1
				Used with deflector at oil sump location.	
GOPUT			15D5	Screw - Inter-cylinder air deflector buffer strap to deflector (#6 - 32 x 1/2") Quantities used: With deflectors at oil sump location - 2; with deflectors at other locations. . .	32
GOPYL			27D130	Washer - Inter-cylinder air deflector buffer strap to deflector (9/64" x 3/8" x 1/32") Quantities used: With deflector at oil sump location - 4; with deflectors at other locations. . .	32
GORAR			27D183	Washer - Inter-cylinder air deflector buffer strap to deflector (at nut end) (9/64" x 5/8" x 1/32")	32
				Used with all deflectors except at oil sump location.	
GORBY			2087D1	Nut - Inter-cylinder air deflector buffer strap to deflector (#6 - 32) Quantities used: With deflector at oil sump location - 2; with deflectors at other locations. . .	32
GORCO			68837	Clamp - Inter-cylinder air deflector, lower, rear.	1
				Used with all deflectors except at oil sump location.	
GORDU			68840	Plate - Inter-cylinder air deflector lower clamp	8
				Used with all deflectors except at oil sump location.	
GOREL			66D45	Rivet - Inter-cylinder air deflector lower clamp to deflector (1/8" x 3/16").	32
				Used with all deflectors except at oil sump location.	
GORFY			27D130	Washer - Inter-cylinder air deflector lower clamp to deflector (9/64" x 3/8" x 1/32").	32
				Used with all deflectors except at oil sump location.	
GORGE			66D2	Rivet - Inter-cylinder air deflector lower clamp plate to deflector (1/8" x 5/16").	16
				Used with all deflectors except at oil sump location.	
GORIZ			69525	Cover - Inter-cylinder air deflector magneto conduit substituting.	6
				Used with deflectors 412606, 412607 and 414714.	
GORLS			15D5	Screw - Inter-cylinder air deflector magneto conduit substituting cover to deflector (#6 - 32 x 1/2")	18
				Used with cover 69525.	
GORMA			27D130	Washer - Inter-cylinder air deflector magneto conduit substituting cover to deflector (9/64" x 3/8" x 1/32").	36
				Used with cover 69525.	
GORNI			2087D1	Nut - Inter-cylinder air deflector magneto conduit substituting cover to deflector (#6 - 32).	18
				Used with cover 69525.	
GOROP			412109	Plate and Screw - Inter-cylinder air deflector upper clamp	7
				Used with deflectors 412606, 412607, 412608, 412676 and 414714.	
				Includes plate and screw.	
GORUG			66D2	Rivet - Inter-cylinder air deflector upper clamp plate to deflector (1/8" x 5/16").	14
				Used with plate 412109.	
GORYT			27D130	Washer - Inter-cylinder air deflector upper clamp plate to deflector (9/64" x 3/8" x 1/32").	14
				Used with plate 412109.	

Code Word	Reference Number	Figure Number	Part Number	Description of Part	Number Used

CYLINDERS, INTAKE PIPES, PISTONS AND AIR DEFLECTORS - Cont'd

INTER-CYLINDER AIR DEFLECTORS - Cont'd

GOSAS			65923	Clamp - Inter-cylinder air deflector magneto blast tube. . Used with deflectors 412606 and 415191.	2
GOSBO			66D2	Rivet - Inter-cylinder air deflector magneto blast tube clamp to deflector (1/8" x 5/16") . . . . . Used with clamp 65923.	8
GOSCI			27D130	Washer - Inter-cylinder air deflector magneto blast tube clamp to deflector (9/64" x 3/8" x 1/32") . . . . . Used with clamp 65923.	8
GOSDU			3D10	Bolt - Inter-cylinder air deflector magneto blast tube clamp (1/4" - 28 x 1 9/16") . . . . . Used with clamp 65923.	2
GOSEK			34D51	Washer - Inter-cylinder air deflector magneto blast tube clamp bolt (17/64" x 1/2" x 3/64"). . . . . Used with clamp 65923.	2
GOSID			2-D-1	Nut - Inter-cylinder air deflector magneto blast tube clamp bolt (1/4" - 28). . . . . Used with clamp 65923.	2
GOSOL			2000D1	Lock - Inter-cylinder air deflector magneto blast tube clamp bolt, palnut (1/4" - 28). . . . . Used with clamp 65923.	2
GOSUR			65924	Plug - Inter-cylinder air deflector magneto blast tube clamp . . . . . Used with deflectors 412606 and 415191.	2
GOSYM			69485	Brace - Inter-cylinder air deflector . . . . . Used with deflector 412837.	1
GOTAX			66D2	Rivet - Inter-cylinder air deflector brace (1/8" x 5/16"). Used with brace 69485.	4
GOTBU			27D130	Washer - Inter-cylinder air deflector brace (9/64" x 3/8" x 1/32") . . . . . Used with brace 69485.	4
GOTCY			112009	Brace - Inter-cylinder air deflector . . . . . Used with deflectors 414305 and 415191.	1
GOTDO			66D2	Rivet - Inter-cylinder air deflector brace to deflector (1/8" x 5/16"). . . . . Used with brace 112009.	3
GOTEP			27D130	Washer - Inter-cylinder air deflector brace to deflector (9/64" x 3/8" x 1/32"). . . . . Used with brace 112009.	3
GOTIR			112010	Brace - Inter-cylinder air deflector . . . . . Used with deflector 414313.	1
GOTOT			66D2	Rivet - Inter-cylinder air deflector brace to deflector (1/8" x 5/16"). . . . . Used with brace 112010.	3
GOTUS			27D130	Washer - Inter-cylinder air deflector brace to deflector (9/64" x 3/8" x 1/32"). . . . . Used with brace 112010.	3
GOUBA	R-2910	23	68838	Clamp - Inter-cylinder air deflector lower, front. . . . . Used with all deflectors except at oil sump location.	8
GOUCI	R-2912	23	45D29	Screw - Inter-cylinder air deflector lower clamp (5/16" - 24 x 2 7/32") . . . . . Used with clamp 68838.	8
GOUDO	R-2914	23	2067D5	Nut - Inter-cylinder air deflector lower clamp screw (5/16" - 24). . . . . Used with clamp 68838.	8
GOUEL	R-2916	23	68864	Spacer - Inter-cylinder air deflector lower clamp screw. . Used with clamp 68838.	8

CYLINDERS, INTAKE PIPES, PISTONS AND AIR DEFLECTORS - Cont'd

Code Word	Reference Number	Figure Number	Part Number	Description of Part	Number Used
				INTER-CYLINDER AIR DEFLECTORS - Cont'd	
GOUGU	R-2918	23	68839	Grommet - Inter-cylinder air deflector upper	9
				Used with deflectors 412606, 412607, 412608 and 412678.	
GOUIZ	R-2920	23	2087D5	Nut - Inter-cylinder air deflector upper clamp screw (5/16" - 24).	9
				Used with grommet 68839.	
GOUKS	R-2922	23	68842	Plate - Inter-cylinder air deflector upper grommet clamping	9
				Used with grommet 68839.	
GOUOV	R-2924	23	3D9	Bolt - Inter-cylinder air deflector brace to rocker box cover (1/4" - 28 x 5/8").	5
				Used with deflectors 412837, 414305, 414313 and 414846.	
GOUWE			34D51	Washer - Inter-cylinder air deflector brace to rocker box cover bolt (17/64" x 1/2" x 3/64").	5
				Used with bolt 3-D-9.	
GOUYK	R-2926	23	2087D3	Nut - Inter-cylinder air deflector brace to rocker box cover bolt (1/4" - 28).	5
				Used with bolt 3-D-9.	
GOVAL	R-2928	23	90D13	Bolt - Inter-cylinder air deflector to oil sump (5/16" - 24 x 5/8").	2
GOVBO			27D4	Washer - Inter-cylinder air deflector to oil sump (21/64" x 19/32" x 3/64")	2
				CYLINDER HEAD AIR DEFLECTORS	
GOWCI	R-2948	23	412286	Deflector - Cylinder head air, assembly.	9
				Used for the following engines: 27880 29395 - 29407 39626 - 39651 28293 29441 - 29442 39656 - 39657 28299 - 28304 31723 - 31787 29343 - 29348 31829 - 31850	
				Right units used at all cylinders except cylinder number 1 for the following engines: 29350 - 29374 31788 - 31828 31851	
				Includes braces, support, scoops, rivets and screws.	
GOWDA	R-2950	23	414334	Deflector - Cylinder head air, assembly.	1
				Used at cylinder number 1 for the following engines: 29350 - 29374 31788 - 31828 31851	
				Includes braces, support, scoops, rivets and screws.	
GOWEN			69083	Brace - Cylinder head air deflector, long.	9
				Used with deflector 412286.	
GOWIM			111978	Brace - Cylinder head air deflector, long.	1
				Used with deflector 414334.	
GOWOG			69084	Brace - Cylinder head air deflector, short	9
				Used with deflector 412286.	
GOWUL			111979	Brace - Cylinder head air deflector, short	1
				Used with deflector 414334.	
GOWYK			69081	Scoop - Cylinder head air deflector, long.	9
				Used with deflector 412286.	
GOXAB			111981	Scoop - Cylinder head air deflector, long.	1
				Used with deflector 414334.	
GOXCI			69082	Scoop - Cylinder head air deflector, short	9
				Used with deflector 412286.	
GOXDU			111980	Scoop - Cylinder head air deflector, short	1
				Used with deflector 414334.	
GOXEN			123D1	Screw - Cylinder head air deflector short brace to scoop (#10 - 32 x 1/2")	18
				Used with deflector 412286.	
GOXFO			34D110	Washer - Cylinder head air deflector short brace to scoop (13/64" x 1/2" x 3/64")	18
				Used with deflector 412286.	

CYLINDERS, INTAKE PIPES, PISTONS AND AIR DEFLECTORS - Cont'd

Code Word	Reference Number	Figure Number	Part Number	Description of Part	Number Used
				CYLINDER HEAD AIR DEFLECTORS - Cont'd	
GOXGY			2087D2	Nut - Cylinder head air deflector brace to scoop (#10 - 32)	36
				Used with deflector 412286.	
GOXIT			55D8	Screw - Cylinder head air deflector long brace to scoop (#10 - 32 x 9/16")	18
				Used with deflector 412286.	
GOXOZ			34D114	Washer - Cylinder head air deflector brace to long scoop (7/32" x 9/16" x 5/32")	18
				Used with deflector 412286.	
GOXUB			69085	Support - Cylinder head air deflector scoop	9
GOXYS			66D2	Rivet - Cylinder head air deflector scoop support to deflector (1/8" x 5/16")	18
GOZAZ			27D130	Washer - Cylinder head air deflector scoop support to deflector (9/64" x 3/8" x 1/32")	18
GOZBO			66D45	Rivet - Cylinder head air deflector scoop to deflector (1/8" x 5/16") Quantities used: With deflector 414334 - 8; with deflector 412286	63
GOZCI			66D45	Rivet - Cylinder head air deflector reinforcing brace to deflector (1/8" x 5/16")	4
				Used with deflector 414334.	
GOZDU	R-2952	23	159D2	Screw - Cylinder head air deflector to cylinder head (1/4" - 28 x 1/2")	27
GOZEG			27D1	Washer - Cylinder head air deflector to cylinder head (at intake flange) (17/64" x 1/2" x 1/32")	9

Code Word	Reference Number	Figure Number	Part Number	Description of Part	Number Used
				VALVE MECHANISM	
				ROCKER ARM	
GRABE			49206	Arm - Intake valve rocker, assembly complete	9
				Includes: Valve clearance adjusting screw; Roller, roller hub and pin; Clamping screw and washer	
GRACI			49207	Arm - Exhaust valve rocker, assembly complete.	9
				Includes: Valve clearance adjusting screw; Roller, roller hub and pin; Clamping screw and washer	
GRADO			89608	Arm - Intake valve rocker.	9
				Includes: Roller, roller hub and pin; Clamping screw and washer	
GRAEL	R-2968	24	89609	Arm - Exhaust valve rocker	9
				Includes: Roller, roller hub and pin; Clamping screw and washer	
GRAFT	R-2970	24	23065	Roller - Rocker arm.	18
GRAGY	R-2972	24	23066	Hub - Rocker arm roller.	18
GRAHA	R-2974	24	29D11	Pin - Rocker arm roller hub (1/4" x 23/32").	18
GRAIN			27D191	Shim - Rocker arm bearing thrust, .005" thick.	As req'd
				For service use only to compensate for wear of the rocker hub bolt bushing in the cylinder head.	
GRAKE			27D192	Shim - Rocker arm bearing thrust, .010" thick.	As req'd
				For service use only to compensate for wear of the rocker hub bolt bushing in the cylinder head.	
GRALL			27D193	Shim - Rocker arm bearing thrust, .015" thick.	As req'd
				For service use only to compensate for wear of the rocker hub bolt bushing in the cylinder head.	
GRAMN	R-2976	24	65657	Bearing - Rocker arm	18
GRAOP	R-2978	24	65678	Bolt - Rocker arm hub.	18
GRARS	R-2980	24	2093D17	Washer - Rocker arm hub bolt, spherical (19/32" I.D.). . .	36
GRATH	R-2982	24	65679	Nut - Rocker arm hub bolt.	18
GRAUV	R-2984	24	62773	Screw - Valve clearance adjusting.	18
GRAWK	R-2986	24	46D13	Screw - Rocker arm clamp (1/4" - 28 x 27/32").	18
GRAXO			189D58	Lockwasher - Rocker arm clamp screw, shakeproof (17/64" I.D.)	18
				PUSH ROD AND HOUSING	
GREBA	R-3016	24	411836	Rod - Push, complete with ball ends.	18
GRECO	R-3018	24	68588	Housing - Push rod	18
GREDI	R-3020	24	2058D32	Hose - Push rod housing, upper	18
GREEL	R-3022	24	2058D54	Hose - Push rod housing, lower	18
GREFU	R-3024	24	4019D2	Clamp - Push rod housing hose.	54
				VALVE TAPPET	
GRIBA	R-3050	24	68572	Tappet - Valve	18
GRICO	R-3052	24	68574	Socket - Valve tappet ball	18
GRIDY	R-3054	24	64962	Spring - Valve tappet ball socket.	18
GRIEN	R-3056	24	68573	Guide - Valve tappet	18
GRIFT	R-3058	24	111977	Gasket - Valve tappet guide to crankcase	18
GRIGU	R-3060	24	2D1	Nut - Valve tappet guide to crankcase (1/4" - 28).	36
GRIIZ			27D152	Washer - Valve tappet guide to crankcase (17/64" x 7/16" x 1/32").	36
GRIKY			2000D1	Lock - Valve tappet guide to crankcase, palnut (1/4" - 28)	36
GRILL	R-3062	24	110069	Roller - Valve tappet	18
GRIMO	R-3064	24	64730	Bushing - Valve tappet roller.	18
GRIPU	R-3066	24	64731	Pin - Valve tappet roller.	18
GRIRA	R-3068	24	64725	Circlet - Valve tappet	18
				VALVES AND SPRINGS	
GROBO			69183	Valve - Intake	9
GROCA	R-3094	24	68550	Valve - Exhaust.	9
				In cases where it is found necessary to re-stellite the exhaust valve faces, return the valve to the Service Division of the Wright Aeronautical Corporation, Paterson, N.J.	
GRODI	R-3096	24	69271	Washer - Valve spring, upper	18

VALVE MECHANISM - Cont'd

VALVES AND SPRINGS - Cont'd

Code Word	Reference Number	Figure Number	Part Number	Description of Part	Number Used
GROEK			69135	Lock - Valve spring washer, intake (split)	18
GROFT	R-3100	24	19965	Lock - Valve spring washer, exhaust (split).	18
GROGE	R-3102	24	68505	Spring - Valve, outer.	18
GROIL	R-3104	24	112382	Spring - Valve, intermediate	18
GROKU	R-3106	24	112381	Spring - Valve, inner.	18
GROLL	R-3108	24	63744	Washer - Valve spring, outer, lower.	18
GROMO	R-3110	24	63743	Washer - Valve spring, intermediate, lower	18

Code Word	Reference Number	Figure Number	Part Number	Description of Part	Number Used

MAGNETOS, IGNITION WIRING AND SPARK PLUGS

Magneto parts are stocked by us as an accommodation for foreign customers. It is requested that domestic orders for these parts be placed directly with the Scintilla Magneto Company, Sidney, N.Y., or with their authorized service stations.

For detail parts of magnetos, see Parts List issued by Scintilla.

When ordering parts for a magneto, be sure to note the type as given on the front end plate of the magneto and enter it on your order.

MAGNETOS

GRUCI	R-3136	25	111873	Magneto - Scintilla SF-9-L4.	2
				Includes gear, magneto shields and blast tubes.	
GRUEN	R-3138	25	111540	Flange - Magneto shield outlet, left (Tilted outlet) . . .	1
				Used on the left hand magneto for the following engines: 29348 — 29441 - 29442 — 39656 - 39657 29352 - 29374 — 31723 - 31850 29395 - 29407 — 39626 - 39651	
GRUFT			67956	Flange - Magneto shield outlet (Straight outlet)	2
				Used on both magnetos for the following engines: 27880 — 28299 - 28304 — 29350 - 29351 28293 — 29343 - 29347 — 31851 One unit used on the right hand magneto for the following engines: 29348 — 29441 - 29442 — 39656 - 39657 29352 - 29374 — 31723 - 31850 29395 - 29407 — 39626 - 39651	
GRUGE	R-3140	25	111874	Elbow - Magneto shield outlet.	1
				Used on the left hand magneto in an upright position for the following engines having a high magneto conduit cross bar: 27880 — 28299 - 28303 — 29350 - 29374 28293 — 29345 - 29346 — 31851 Used on the right hand magneto in an inverted position for the following engines having a low magneto conduit cross bar: 28304 — 29395 - 29407 — 39626 - 39651 29343 - 29344 — 29441 - 29442 — 39656 - 39657 29347 - 29348 — 31723 - 31850	
GRUIM			68832	Elbow - Magneto shield outlet.	1
				Used on the right hand magneto in an upright position for the following engines having a high magneto conduit cross bar: 27880 — 28299 - 28303 — 29350 - 29374 28293 — 29345 - 29346 — 31851 Used on the left hand magneto in an inverted position for the following engines having a low magneto conduit cross bar: 28304 — 29395 - 29407 — 39626 - 39651 29343 - 29344 — 29441 - 29442 — 39656 - 39657 29347 - 29348 — 31723 - 31850	
GRUKL	R-3142	25	27206	Plug - Magneto shield outlet elbow ground connection boss.	1
GRUMU	R-3144	25	68897	Gasket - Magneto shield outlet flange and elbow to magneto	4
GRUNO	R-3146	25	150D5	Screw - Magneto shield outlet elbow thru magneto to magneto shield outlet flange (1/4" - 20 x 2 5/8"). . . .	4
GRUYE	R-3148	25	69453	Box - Magneto ground wire junction	2
GRUZA			111787	Wire - Magneto booster	10 ft.
GRYCO	R-3150	25	25677	Gasket - Magneto to supercharger rear cover.	2
GRYDA	R-3152	25	1D40	Nut - Magneto to supercharger rear cover (5/16" - 24). . .	6
GRYEN			34D4	Washer - Magneto to supercharger rear cover (21/64" x 3/4" x 3/32")	6

IGNITION WIRING

GUAAL	R-3190	26	68958N11	Wiring Harness - Radio-shielded (Breeze)	1
				Used for the following engines: 27880 — 29350 - 29374 — 31851 28293 — 29395 - 29407 — 39656 - 39657 28299 - 28304 — 29441 - 29442 29343 - 29348 — 31723 - 31832 Includes clips, washers and wire.	
GUABO			111419N11	Wiring Harness - Radio-shielded (Titeflex)	1
				Used for the following engines: 31833 - 31850 — 39626 - 39651 Includes clips, washers and wire.	

MAGNETOS, IGNITION WIRING AND SPARK PLUGS - Cont'd

Code Word	Reference Number	Figure Number	Part Number	Description of Part	Number Used
				IGNITION WIRING - Cont'd	
GUACU	R-3192	26	68859	Support - Radio-shielded wiring harness to crankcase front section	4
GUADN	R-3193	26	4019D8	Clamp - Radio-shielded wiring harness to wiring harness support	8
GUAEK	R-3194	26	111787	Wire - Ignition Quantities used: With Breeze harness - 169 ft.; with Titeflex harness	158 ft.
GUAFY	R-3196	26	113103N1	Elbow - Spark plug shielded terminal (9/16" thread).	18
				This elbow has the inside diameter at the ignition wire end machined for use with the cylinderical shaped washer, part 37D99. Some of the above engines were equipped with elbow 61800 which has the inside diameter at the ignition wire end tapered for use with the conical shaped washer, part 24391. Elbow 61800 is no longer supplied. For replacement, use elbow 113103N1, washer 37D99, washer 27D208 and discard washer 24391.	
GUAIL	R-3198	26	61722	Contact - Spark plug shielded terminal	18
GUAKU			24391	Washer - Spark plug shielded terminal elbow, rubber (conical)	18
				Used with elbow 61800.	
				Installed between elbow and ignition wire.	
GUALT	R-3200	26	37D99	Washer - Spark plug shielded terminal elbow, rubber (cylinderical) (5/16" x 9/16" x 7/32").	18
				Used with elbow 113103N1.	
				Installed between elbow and ignition wire.	
GUAMI	R-3202	26	27D208	Washer - Spark plug shielded terminal elbow, copper (25/64" x 33/64" x 1/32")	18
				Used with elbow 113103N1.	
				Installed between elbow and spark plug.	
GUANS	R-3204	26	111543	Bracket - Ignition manifold support clamp, left.	2
				Used for the following engines: 29348 — 29441 - 29442 — 39656 - 39657 29352 - 29374 — 31723 - 31850 29395 - 29407 — 39626 - 39651	
GUAOT			111542	Bracket - Ignition manifold support clamp, right	2
				Used for the following engines: 29348 — 29441 - 29442 — 39656 - 39657 29352 - 29374 — 31723 - 31850 29395 - 29407 — 39626 - 39651	
GUAPL	R-3206	26	111541	Clamp - Ignition manifold support.	2
				Used with brackets 111542 and 111543.	
GUARE	R-3208	26	123D5	Screw - Ignition manifold support clamp (#10 - 32 x 5/8").	2
				Used with clamp 111541.	
GUASB	R-3210	26	2087D2	Nut - Ignition manifold support clamp (#10 - 32)	2
				Used with clamp 111541.	
				SPARK PLUGS	
				Spark plugs are handled as an accommodation only. Whenever possible, they should be bought direct from the maker or the maker's representative.	
GUBUZ	R-3226	26	64174	Plug - Spark, B.G. #298-GS	18
				Used for the following engines: 27980 — 29350 - 29374 — 39626 - 39651 28283 — 29395 - 29404 — 39656 - 39657 28299 - 28304 — 29441 - 29442 29343 - 29347 — 31829 - 31851	
GUBYK			69561	Plug - Spark, Bendix 8S-5.	18
				Used for the following engines: 29348 — 29405 - 29407 — 31723 - 31828	
GUCBI	R-3228	26	27D104	Gasket - Spark plug.	18

CARBURETOR, ADAPTER AND AIR SCOOP ATTACHING PARTS

Code Word	Reference Number	Figure Number	Part Number	Description of Part	Number Used
				CARBURETOR	
				Carburetor parts are stocked by us as an accommodation for foreign customers. It is requested that domestic orders for these parts be placed direct with the carburetor manufacturer or with their authorized service stations.	
				For detail parts of carburetors, see Parts List by Holley® or Bendix-Stromberg.	
				All carburetor studs are supplied by the carburetor manufacturer. When ordering replacements, be sure to state the manufacturer's model designation as well as the Wright Aeronautical Corporation's part number.	
GUDAK	R-3256	27	69268N53	Carburetor (Holley 1375-F)	1
				Used for the following model G-205A engines: 29347, 29397 - 29398	
				Includes studs.	
GUDDI			69268N54	Carburetor (Holley 1375-F)	1
				Used for the following model G-205B engines: 29401, 29403 - 29404	
				Includes studs.	
GUDEN			68955N13	Carburetor (Bendix-Stromberg PD-12B7).	1
				Used for the following model G-202A, G-205A and G-205B engines: 27880, 28293, 28299 - 28304, 29343 - 29346, 29395 - 29396, 29399 - 29400, 29402, 29441 - 29442	
				Includes adapter, tube and studs.	
GUDFU	R-3258	28	111544N1	Carburetor (Bendix-Stromberg PD-12H3).	1
				Used for the following model G-205A engines: 29348, 29350 - 29374, 29405 - 29407, 31723 - 31828, 31829 - 31850, 31851, 39626 - 39651, 39656 - 39657	
				Includes adapter, tube and studs.	
GUDHO	R-3260	27	66315	Gasket - Carburetor to carburetor adapter.	1
				Used with Holley carburetors.	
GUDIR	R-3262	28	68513	Gasket - Carburetor to supercharger rear housing	1
				Used with Bendix Stromberg carburetors.	
GUDOL	R-3264	27	2D7	Nut - Carburetor to carburetor adapter (3/8" - 24)	6
				Used with Holley carburetors.	
GUDUN			2093D7	Washer - Carburetor to carburetor adapter, spherical (25/64" I.D.)	6
				Used with Holley carburetors.	
GUDYK			2000D3	Lock - Carburetor to carburetor adapter, palnut (3/8" - 24)	6
				Used with Holley carburetors.	
GUDZI	R-3266	28	2101D5	Nut - Carburetor to supercharger rear housing (3/8" - 24).	8
				Used with Bendix Stromberg carburetors.	
GUEBA			2093D7	Washer - Carburetor to supercharger rear housing, spherical (25/64" I.D.)	8
				Used with Bendix Stromberg carburetors.	
GUECI	R-3268	27	67393	Gasket - Carburetor to air scoop adapter	1
				Used with Holley carburetors.	
				CARBURETOR FUEL INLET (FOR HOLLEY CARBURETORS)	
GUFDO	R-3298	27	111581N3	Fuel Inlet - Carburetor (Holley E type).	1
				CARBURETOR ADAPTER (FOR HOLLEY CARBURETORS)	
GUGEZ	R-3324	27	411771	Adapter - Carburetor	1
				Includes bushings and plugs.	
GUGFO	R-3326	27	64280	Bushing - Carburetor adapter temperature bulb connection substituting plug	1

CARBURETOR, ADAPTER AND AIR SCOOP ATTACHING PARTS - Cont'd

Code Word	Reference Number	Figure Number	Part Number	Description of Part	Number Used
				CARBURETOR ADAPTER (FOR HOLLEY CARBURETORS) - Cont'd	
GUGGI	R-3328	27	93D18	Plug - Carburetor adapter temperature bulb connection substituting (5/16").	1
GUGHA			23D16	Gasket - Carburetor adapter temperature bulb connection substituting plug	1
GUGKU			2105D2	Plug - Carburetor adapter vacuum gage connection substituting (1/4")	1
GUGLY	R-3332	27	68513	Gasket - Carburetor adapter to rear supercharger housing	1
GUGME	R-3334	27	2D7	Nut - Carburetor adapter to rear supercharger housing, plain (3/8" - 24)	6
GUGNT	R-3336	27	124D61	Nut - Carburetor adapter to rear supercharger housing, acorn (3/8" - 24)	2
GUGOP			2093D7	Washer - Carburetor adapter to rear supercharger housing, spherical (25/64" I.D.)	8
GUGRI			2000D3	Lock - Carburetor adapter to rear supercharger housing, palnut (3/8" - 24).	8
				CARBURETOR ADAPTER (FOR BENDIX STROMBERG CARBURETORS)	
				See Bendix Stromberg Parts List for PD-12B7 and PD-12H3 carburetors.	
				CARBURETOR AIR SCOOP ADAPTER (FOR HOLLEY CARBURETORS)	
GUHNI	R-3362	27	67489	Adapter - Carburetor air scoop	1
				CARBURETOR AIR INLET SCREEN AND AIR SCOOP ATTACHING PARTS	
GUIBA	R-3388	27	411182	Screen - Carburetor air inlet.	1
				Used with Holley carburetors.	
GUICO	R-3390	28	413817	Screen - Carburetor air inlet.	1
				Used with Bendix Stromberg carburetors.	
GUIDY	R-3392	27	67393	Gasket - Carburetor air inlet screen to air scoop and air scoop adapter	2
				Used with Holley carburetors.	
GUIEM	R-3394	28	68796	Gasket - Carburetor air inlet screen to carburetor and air scoop	2
				Used with Bendix Stromberg carburetors.	
GUIFL	R-3396	27,28	2D40	Nut - Carburetor air scoop to air scoop adapter or carburetor (5/16" - 24) Quantities used: With Holley carburetors - 8; with Bendix Stromberg carburetors	10
GUIGN			34D88	Washer - Carburetor air scoop to air scoop adapter or carburetor (21/64" x 1/2" x 1/16") Quantities used: With Holley carburetors - 8; with Bendix Stromberg carburetors	10
GUIHU			2000D2	Lock - Carburetor air scoop to air scoop adapter or carburetor, palnut (5/16" - 24) Quantities used: With Holley carburetors - 8; with Bendix Stromberg carburetors	10

GUN SYNCHRONIZER IMPULSE GENERATORS

Parts listed in this group were installed on the following 3:2 reduction geared engines only:
29350 - 29388 31851

Code Word	Reference Number	Figure Number	Part Number	Description of Part	Number Used
GUKHO			414486	Generator - Gun synchronizer impulse, assembly, complete, R.H	1
GUKIB			414487	Generator - Gun synchronizer impulse, assembly, complete, L.H	1
GUKKU	R-3422	29	411413	Support - Gun synchronizer impulse generator drive shaft, with bushings	2
GUKLA	R-3424	29	68019	Bushing - Gun synchronizer impulse generator drive shaft, support, shouldered	4
GUKMY	R-3426	29	49021	Shaft - Gun synchronizer impulse generator drive, with plug	2
GUKNE	R-3428	29	27508	Cam - Gun synchronizer impulse generator	2
GUKOG	R-3430	29	27622	Nut - Gun synchronizer impulse generator drive shaft	2
GUKRZ	R-3432	29	27623	Ring - Gun synchronizer impulse generator drive shaft nut, snap	2
GUKSI	R-3434	29	27471	Gasket - Gun synchronizer impulse generator drive shaft support to lower plunger housing	2
GUKUH	R-3436	29	27506	Housing - Gun synchronizer impulse generator plunger, upper, R.H.	1
GUKYT			27507	Housing - Gun synchronizer impulse generator plunger, upper, L.H.	1
GULAD	R-3438	29	27513	Shim - Gun synchronizer impulse generator plunger upper housing to lower housing	2
GULBI	R-3440	29	410870	Housing - Gun synchronizer impulse generator plunger, lower, with studs, R.H.	1
GULCO			410871	Housing - Gun synchronizer impulse generator plunger, lower, with studs, L.H.	1
GULDY	R-3442	29	2028H7	Stud - Gun synchronizer impulse generator plunger lower housing to upper housing, short, .003" oversize (1/4" - 20 - 28 x 1 3/16")	4
GULEM	R-3442	29	2028S7	Stud - Gun synchronizer impulse generator plunger lower housing to upper housing, short, .007" oversize (1/4" - 20 - 28 x 1 3/16")	4
GULFT	R-3442	29	2028J7	Stud - Gun synchronizer impulse generator plunger lower housing to upper housing, short, .012" oversize (1/4" - 20 - 28 x 1 3/16")	4
GULGZ	R-3444	29	2028H15	Stud - Gun synchronizer impulse generator plunger lower housing to upper housing, long, .003" oversize (1/4" - 20 - 28 x 1 11/16")	2
GULHU	R-3444	29	2028S15	Stud - Gun synchronizer impulse generator plunger lower housing to upper housing, long, .007" oversize (1/4" - 20 - 28 x 1 11/16")	2
GULIN	R-3444	29	2028J15	Stud - Gun synchronizer impulse generator plunger lower housing to upper housing, long, .012" oversize (1/4" - 20 - 28 x 1 11/16")	2
GULKS	R-3446	29	1D1	Nut - Gun synchronizer impulse generator upper housing to lower housing (1/4" - 28)	6
GULLE			27D3	Washer - Gun synchronizer impulse generator upper housing to lower housing (17/64" x 1/2" x 1/16")	6
GULMI	R-3448	29	44056	Plunger - Gun synchronizer impulse generator, assembly, R.H Includes plunger, cam roller and washer.	1
GULNT			44057	Plunger - Gun synchronizer impulse generator, assembly, L.H Includes plunger, cam roller and washer.	1
GULOW	R-3450	29	93D20	Plug - Gun synchronizer impulse generator lower plunger housing (1 1/8" - 12)	2
GULPH	R-3452	29	23D2	Gasket - Gun synchronizer impulse generator lower plunger housing plug Used with plug 93D20.	2
GULRA	R-3454	29	2025D2	Plug - Gun synchronizer impulse generator lower plunger housing (5/8" - 18)	2
GULSU	R-3456	29	23D16	Gasket - Gun synchronizer impulse generator lower plunger housing plug Used with plug 2025D2.	2
GULTA	R-3458	29	23756	Plug - Gun control cable replacement	2
GULUX	R-3460	29	20513	Cover - Gun synchronizer impulse generator operating cable replacement	2
GULVI	R-3462	29	86D5	Screw - Gun synchronizer impulse generator data plate (#10 - 32 x 17/64")	4
GULWE	R-3464	29	27471	Gasket - Gun synchronizer impulse generator to supercharger rear housing	2
GULYK	R-3466	29	• 22D6	Screw - Gun synchronizer impulse generator to supercharger rear housing (1/4" - 20 x 3/4")	6
GULZO			27D1	Washer - Gun synchronizer impulse generator to supercharger rear housing (17/64" x 1/2" x 1/32")	6

TOOL KIT

Complete tool kits are not carried in stock but will be assembled upon special order when engine serial number is given. Prices will be quoted upon request. Any of the tool kit tools can be obtained from the following listing:

Code Word	Reference Number	Figure Number	Part Number	Description of Part	Number Used
GUMZU	R-3494	30	80150	Wrench - Box, 3/8" - 7/16"	1
GUNAD	R-3496	30	80151	Wrench - Box, 1/2" - 1/2"	1
GUNBI	R-3498	30	80152	Wrench - Box, 1/2" - 9/16"	1
GUNCO	R-3500	30	80447	Wrench - End, 5/8" - 9/16"	1
GUNDU	R-3502	30	80535	Wrench - End, 5/16" - 3/8"	1
GUNEL	R-3504	30	80536	Wrench - End, 7/16" - 1/2"	1
GUNFY	R-3506	30	80537	Wrench - End, 3/4" - 1"	1
GUNGD	R-3508	30	81679	Wrench - End, 1 7/16"	1
				Used for engines equipped with gun synchronizers.	
GUNHZ	R-3510	30	84325	Wrench - End, 9/32" - 3/8"	1
GUNIX	R-3512	30	81900	Wrench - Valve clearance adjusting and lockscrew, 3/8" hex	1
GUNKE	R-3514	30	82058	Wrench - Oil sump strainer and rear cover oil cleanout plug	1
GUNLS	R-3516	30	82750	Wrench - Cylinder hold-down capscrew, 9/16" hex.	1
GUNNA	R-3518	30	82889	Wrench - Propeller shaft thrust bearing nut, lug	1
GUNOB	R-3520	30	83202	Wrench - Rocker hub bolt and nut, 7/8" hex	1
GUNPH	R-3522	30	800060	Wrench - Rocker hub bolt and nut, 7/8" socket.	1
GUNRT	R-3524	30	84414	Wrench - Spark plug, 1" hex.	1
GUNYN	R-3526	30	82848	Wrench - Gun synchronizer impulse generator cam adjustment	1
GUOBI	R-3528	30	84258	Wrench - Intake pipe packing nut	1
GUOCO	R-3530	30	80137	Screwdriver - 12"	1
GUOEK	R-3534	30	81132	Screwdriver - Valve clearance adjusting.	1
GUOFY	R-3536	30	80145	Pliers - 6" combination.	1
GUOGL	R-3538	30	80139	Hammer - Ball pein 1#	1
GUOHE	R-3540	30	81403	Handle - Universal	1
GUOIX	R-3542	30	80540	Roll - Tool.	1
GUOKT	R-3544	30	81405	Gage - Feeler, assembly.	1
GUOLW	R-3546	30	81409	Compressor - Valve spring.	1
GUOMU	R-3548	30	84377	Tool - Piston pin retaining spring removing.	1
GUOND	R-3550	30	84861	Tool - Piston pin retaining spring installing.	1
GUOOZ	R-3552	30	800197	Adapter - Piston pin retaining spring installing tool.	1
GUOPH			84329	Sling - Engine, assembly	1
				This part is shipped with engines but is not part of the engine tool kit.	

Code Word	Reference Number	Figure Number	Part Number	Description of Part	Number Used
				MISCELLANEOUS	
				INSTRUCTION BOOK	
GUFMO			111722	Book - Instruction	1
				PRIMING TUBE FITTINGS	
GURNA			158D4	Nipple - Priming tube to supercharger front housing (7/16" - 20)	1
GUROT			156D3	Nut - Priming tube to supercharger front housing elbow (7/16" - 20)	1
GURUL			157D3	Cone - Priming tube to supercharger front housing elbow	1
				THERMOCOUPLE (CYLINDER BASE)	
				Parts listed below were factory installed on the following engines: 28293 29347 31851 28299 29350 - 29374	
GUSUT			49732	Thermocouple, assembly Includes all parts required to install thermocouple on one cylinder.	1
GUSVO			49731	Support - Thermocouple, assembly Includes support, plates, terminals, screws, washers and nuts.	1
GUSWA	R-3576	31	66276	Support - Thermocouple	1
GUSYL	R-3578	31	66271	Plate - Thermocouple insulating	2
GUSZI	R-3580	31	37D6	Washer - Thermocouple terminal insulating (13/64" x 9/32" x 1/16")	2
GUTAB	R-3582	31	25776	Terminal - Thermocouple	2
GUTCO	R-3584	31	33D17	Nut - Thermocouple terminal (#10 - 32)	2
GUTDY	R-3586	31	11D4	Screw - Thermocouple terminal (#8 - 32 x 3/8")	2
GUTEN	R-3588	31	22316	Wire - Thermocouple iron	5"
GUTHU	R-3590	31	22317	Wire - Thermocouple constantan	5"
GUTIX			25496	Tubing - Thermocouple wire, flexible (black)	5"
GUTKE			27975	Tubing - Thermocouple wire, flexible (yellow)	5"
GUTOW	R-3592	31	25774	Bushing - Thermocouple wire retainer	2
				THERMOCOUPLE (SPARK PLUG)	
GUVAC	R-3618	31	68325	Thermocouple - Spark plug (Copper constantan) Factory installed on the following engines: 29350 - 29374 31851 Includes clamp, screw and lockwasher.	1
GUVBO	R-3620	31	61459	Clamp - Spark plug thermocouple wire	2
GUVCI	R-3622	31	123D4	Screw - Spark plug thermocouple wire clamp (#10 - 32 x 1/2")	1
GUVDU			28D5	Lockwasher - Spark plug thermocouple wire clamp screw (13/64" I.D.)	1
				GASKET SET	
GUWCA			89928	Gaskets - Complete set This set contains all the gaskets required to completely rebuild any Cyclone "G-200" engine, except rocker box cover gaskets. It does not include cork, leather or rubber washers and packings.	1

NUMERICAL PARTS LIST

Part Number	Description of Part	Code Word
1D1	Nut	†GHOHU
1D4	Nut	†GEAZO
1D7	Nut	GIWPH
1D40	Nut	GRYDA
1D91	Nut	GADOV
2D1	Nut	†GEOUG
2D4	Nut	†GEAYB
2D7	Nut	†GALGO
2D39	Nut	GOCIT
2D40	Nut	GUIFL
3D9	Bolt	GOUOV
3D10	Bolt	†GOSDU
4H16	Bushing	GEFOX
4J16	Bushing	GEFUL
4S16	Bushing	GEFIG
11D4	Screw	GUTDY
13D38	Pin	GNYBI
13D54	Pin	GHIVN
13D55	Pin	GAOLS
15D5	Screw	†GOPUT
17D20	Pin	GANAT
19H16	Bushing	GAOMY
19J16	Bushing	GAORP
19S16	Bushing	GAOOB
20D9	Pin	GIVTO
20D12	Pin	GIZCO
20H12	Pin	GIZDU
20J12	Pin	GIZIK
20S12	Pin	GIZET
21D80	Bearing Use 21D92.	GNEIW
22D1	Screw	GATLY
22D6	Screw	GULYK
23D2	Gasket Use 23D25 for supercharger front housing oil drain plug location.	†GAEGU
23D5	Gasket	GEGAP
23D16	Gasket	†GACYK
23D17	Gasket	GEANT
23D19	Gasket Use 23D1.	GEAUM
23D23	Gasket	†GEGIS
23D30	Gasket	GAKUM
27D1	Washer	†GATOC
27D3	Washer	GULLE
27D4	Washer	GOVBO
27D5	Washer	GEBDI
27D30	Washer	†GAOHU
27D67	Gasket	GACOG
27D76	Washer	GADYP
27D104	Gasket	GUCBI
27D107	Washer	GIURI
27D118	Washer	†GEBCO
27D130	Washer	†GOPYL
27D152	Washer	GRIIZ
27D156	Washer	GIYVE
27D159	Washer	†GEBEK
27D183	Washer	GORAR
27D191	Shim	GRAIN
27D192	Shim	GRAKE
27D193	Shim	GRALL
27D202	Washer	GHUMY
27D208	Washer	GUAMI
28D5	Lockwasher	GUVDU
28D12	Lockwasher	GEBGA
28D14	Lockwasher	GOBOL
29D10	Pin	GIOTE
29D11	Pin	GRAHA
33D17	Nut	GUTCO
34D4	Washer	GRYEN
34D14	Washer	†GADKU
34D16	Washer	GAEEZ
34D33	Washer	†GEDYK
34D39	Washer	GIVZU
34D51	Washer	†GANCU
34D88	Washer	GUIGN
34D110	Washer	GOXFO
34D114	Washer	GOXOZ
34D131	Washer	GAFKY
35D7	Screw Use 35D7 for Chicago and Southern Airlines engines.	GEWJE
35D32	Screw	GEWOK
37D6	Washer	GUSZI
37D26	Washer	GAOWU
37D28	Washer	GEPCO
37D41	Washer	GAUYB
37D76	Gasket	GAUSE
37D99	Washer	GUALT
45D1	Screw	GOEHU
45D28	Screw	GADUC
45D29	Screw	GOUCI
46D13	Screw	GRAWK
55D8	Screw	GOXIT
56D3	Screw	GHACO
56D6	Screw	GAXOP
56D10	Screw	GAIUD
65D15	Screw	†GIDBY
65D19	Screw	GIKEG
66D3	Rivet	†GORGE
66D45	Rivet	†GOREL
70D3	Pin	GADAL
70D6	Pin	GAPOL
82D15	Bolt	GIWMN
82D16	Bolt	GIWKU
85D16	Lockwire	GHIPH
86D5	Screw	†GHYIW
86D11	Screw	GIZWA
87D9	Pin	†GEMFU
90D13	Bolt	GOVAL
90D31	Screw	GIKBO
93D16	Plug	GAEFI
93D18	Plug	†GEREP
93D20	Plug	GULOW
99D12	Plug	GIOSK
102D12	Plug	GNAWK
102D13	Plug	GNAXM
102D33	Plug	†GEACG
118H2	Stud	GABDI
118J2	Stud	GABGY
118S2	Stud	GABEL
118H6	Stud	GEJYF
118J6	Stud	GEKES
118S6	Stud	GEKAT
123D1	Screw	GOXEN
123D4	Screw	GUVCI
123D5	Screw	GUARE
124D58	Nut	GIUNT
124D61	Nut	GUGNT
124D75	Nut	GNEAL
124D81	Nut	GIUEG
124D82	Nut	GIUDO
124D83	Nut	GEBBY
124D95	Nut	GOBGE
124D107	Nut	GEXEZ
124D112	Nut	GIUHI
124D118	Nut	GELAR
125D114	Screw	GEHIT
126H137	Stud	GARES
126J137	Stud	GARIM
126S137	Stud	GARGL
126H138	Stud	GAYYB
126J138	Stud	GAZEF
126S138	Stud	GAZAG
126H145	Stud	GACDI
126J145	Stud	GACFY
126S145	Stud	GACER
126H154	Stud	GARKU
126J154	Stud	GAROZ
126S154	Stud	GARLA
126H169	Stud	GISLT
126J169	Stud	GISUD
126S169	Stud	GISON
126H177	Stud	GISHU
126J177	Stud	GISKS
126S177	Stud	GISIT
129D66	Gasket	GASYM

† Indicates a part which is listed in more than one place in catalog.

NUMERICAL PARTS LIST - Cont'd

Part Number	Description of Part	Code Word
129D67	Gasket	GEOTY
129D78	Gasket	GALFY
130D50	Cover	GALCA
132D1	Screw	GAPEG
137D11	Screw	GERCT
147D4	Screw	†GAOGA
150D2	Screw	GOZDU
150D5	Screw	GRUNO
155D49	Bearing	GIXFY
155D50	Bearing	GIXGR
156D3	Nut	GUROT
157D3	Cone	GURUL
158D4	Nipple	GURNA
163D50	Plug	GAKIT
163D51	Plug	GAKOL
163D55	Nozzle	GAKER
163D64	Fitting	GEAVE
189D1	Lockwasher	†GHYSX
189D58	Lockwasher	GRAXO
189D59	Lockwasher	GOEIM
2000D1	Lock	†GEOZE
2000D2	Lock	†GEBFU
2000D3	Lock	†GALOS
2019D7	Circlet	GIAEM
2025D2	Plug	GULRA
2028H7	Stud	GULDY
2028J7	Stud	GULFT
2028S7	Stud	GULEM
2028H8	Stud	GAXUR
2028J8	Stud	GAYCA
2028S8	Stud	GAYBE
2028H15	Stud	GULGZ
2028J15	Stud	GULIN
2028S15	Stud	GULHU
2028H21	Stud	GINYD
2028J21	Stud	GIOBA
2028S21	Stud	GINZL
2028H32	Stud	GEJIM
2028J32	Stud	GEJUG
2028S32	Stud	GEJOL
2028H37	Stud	GARBY
2028J37	Stud	GARDI
2028S37	Stud	GARCO
2029H17	Stud	GEAHU
2029J17	Stud	GEAKA
2029S17	Stud	GEAIM
2029H18	Stud	GAYDO
2029J18	Stud	GAYFU
2029S18	Stud	GAYEG
2029H19	Stud	GIOLD
2029J19	Stud	GIOOZ
2029S19	Stud	GIOMT
2029H22	Stud	GIOGU
2029J22	Stud	GIOIS
2029S22	Stud	GIOHE
2029H61	Stud	GEKKY
2029J61	Stud	GEKOM
2029S61	Stud	GEKLA
2030H9	Stud	†GAYHI
2030J9	Stud	†GAYLE
2030S9	Stud	†GAYKY
2030H10	Stud	GASAW
2030J10	Stud	GASCE
2030S10	Stud	GASBO
2030H12	Stud	GASDY
2030J12	Stud	GASGU
2030S12	Stud	GASEK
2030H31	Stud	GARUR
2030J31	Stud	GARZE
2030S31	Stud	GARYP
2030H61	Stud	GIOCO
2030J61	Stud	GIOEK
2030S61	Stud	GIODY
2031H12	Stud	GAHCI
2031J12	Stud	GAHEN
2031S12	Stud	GAHDY
2031H19	Stud	GAHGU
2031J19	Stud	GAHOM
2031S19	Stud	GAHIK
2031H20	Stud	†GABHU
2031J20	Stud	†GABOR
2031S20	Stud	†GABIM
2031H22	Stud	GAICU
2031J22	Stud	GAIFE
2031S22	Stud	GAIDY
2032H7	Stud	GABYD
2032J7	Stud	GACBO
2032S7	Stud	GACAM
2032H10	Stud	†GAZIL
2032J10	Stud	†GAZUM
2032S10	Stud	†GAZOR
2037D21	Pin	GAFOB
2043D62	Stud	GIEMS
2043H65	Stud	GAZYP
2043J65	Stud	GEACI
2043S65	Stud	GEABO
2045D11	Screw	GOCAK
2045J11	Screw	GOCCI
2045S11	Screw	GOCBO
2045D14	Screw	GALUK
2045D19	Screw	GAFIG
2045D21	Screw	GAECA
2045D22	Screw	GAEBO
2045D24	Screw	GNITZ
2052D12	Plug	GIADV
2052D21	Plug	GIACO
2054D7	Screw	GHYRU
2057D17	Screw	GAEAR
2058D32	Hose	GREDI
2058D54	Hose	GREEL
2067D1	Lock Use 2067D21.	GHAEL
2067D2	Lock	GIVXN
2067D8	Lock	GIWUG
2067D9	Lock	GIXBO
2067D10	Lockwasher	GEHOD
2067D12	Lockwasher	GIXOM
2069D6	Bolt	GLOSS
2070D1	Screw	GEAMS
2070D11	Screw	GEAXE
2072D7	Plug	GEATZ
2075D7	Screw	GNANT
2075D14	Screw	†GIWYD
2075D16	Screw	GIXIK
2077D9	Pin	GLOBE
2077D20	Pin	GIZBY
2077D24	Pin	GNAVE
2083D1	Ring	GAFYT
2083D10	Ring	†GELOT
2084D3	Plug Use 2084D8.	GIVVA
2087D1	Nut	†GORBY
2087D2	Nut	†GOXGY
2087D3	Nut	GOUYK
2087D5	Nut	†GOUDO
2091D2	Plug	GEFYT
2093D7	Washer	†GUDUN
2093D14	Washer	GOCDU
2093D16	Washer	GALYN
2093D17	Washer	GRARS
2101D3	Nut	GANBY
2101D4	Nut	GNAFY
2101D5	Nut	†GIWOR
2101D6	Nut	GAFME
2101D7	Nut	GNAAT
2105D1	Plug	†GACGA
2105D2	Plug	†GACHU
2105D3	Plug	GASUP
2105D5	Plug	GECUP
2119D12	Bushing	GNIPH
2119D17	Bushing	GNIOZ
2125D3	Plug	GACME
2126D1	Plug	†GACUD
2126D5	Plug Use 5037D6 for supercharger front housing oil drain hole location.	GAKAC

† Indicates a part which is listed in more than one place in catalog.

NUMERICAL PARTS LIST - Cont'd

Part Number	Description of Part	Code Word
2128D4	Screw.	GIVWI
	Use 1 each of 2165D4 and 2064D8.	
2130D1	Pin.	GAJUL
2135H100	Stud	GABSA
2135J100	Stud	GABWE
2135S100	Stud	GABUK
2136H65	Stud	GNYLD
2136J65	Stud	GNYOF
2136S65	Stud	GNYMS
2137H75	Stud	GEKFO
2137J75	Stud	GEKHU
2137S75	Stud	GEKGI
2137H80	Stud	GAPUN
2137J80	Stud	GARAT
2137S80	Stud	GAPYT
2139H145	Stud	GASIL
2139J145	Stud	GASOT
2139S145	Stud	GASKA
2142D1	Plug	†GACIN
2142D2	Plug	GACKL
2145H95	Stud	GNYDO
2145J95	Stud	GNYGU
2145S95	Stud	GNYFT
2146H55	Stud	GNYPH
2146J55	Stud	GNYST
2146S55	Stud	GNYRL
2162D6	Plug	GEPYR
4015H2	Bushing.	GOAIB
4015J2	Bushing.	GOALD
4015S2	Bushing.	GOAKY
4015H3	Bushing.	GOACI
4015J3	Bushing.	GOAET
4015S3	Bushing.	GOADO
4016H3	Bushing.	GNYUV
4016J3	Bushing.	GNYZA
4016S3	Bushing.	GNYXI
4019D2	Clamp.	GREFU
4019D8	Clamp.	GUADN
4028H2	Bushing.	GOAFU
4028J2	Bushing.	GOAHA
4028S2	Bushing.	GOAGL
4037D4	Flange	GEPPH
	Use 4037D2 for outlet connection and 4037D3 for inlet connection.	
5015D3	Ring	GNEFT
5015H3	Ring	GNEGN
5015S3	Ring	GNEHL
5015D12	Ring	GNAPH
	Use 113255.	
5015H12	Ring	GNARX
	Use 113255Y1.	
5015S12	Ring	GNASY
	Use 113255Y2.	
C6516	Cap.	GEPBI
14981	Gasket	GECEM
19965	Lock	GROFT
20513	Cover.	GULUX
22316	Wire	GUTEN
22317	Wire	GUTHU
23065	Roller	GRAFT
23066	Hub.	GRAGY
23328	Cover.	†GEBIN
23329	Cover.	GITOM
23756	Plug	GULTA
24391	Washer	GUAKU
25496	Tubing	GUTIX
25520	Ring	GOBUN
25677	Gasket	GRYCO
25774	Bushing.	GUTOW
25776	Terminal	GUTAB
25868	Shim	GHABI
25937	Bushing.	GAWDY
26085	Pin.	GIZKO
26240	Gasket	GEVBE
27206	Plug	GRUKL
27471	Gasket	†GATID
27506	Housing.	GUKUH
27507	Housing.	GUKYT
27508	Cam.	GUKNE
27513	Shim	GULAD
27622	Nut.	GUKOG
27623	Ring	GUKRZ
27629	Gear	GIFUR
27975	Tubing	GUTKE
28305	Gear	GIDAR
28776	Nut.	GNALM
28842	Nut.	GIZTZ
28843	Gasket	GIXEN
28922	Cover.	†GEPDU
28957	Bushing.	GAXEL
29118	Plug	GAUWI
29120	Disc	GAUVN
29250	Sleeve	GEYOC
29288	Tube	GAPAN
29291	Clip	GAPDI
29292	Bushing.	GAOST
29320	Bushing.	GAOIK
29519	Housing.	GAURA
29539	Plate.	GHYGL
29550	Spring	GHYEK
29730	Circlet.	GADIG
44056	Plunger.	GULMI
44057	Plunger.	GULNT
45286	Tube	GAUZL
45439	Valve.	GAUPY
46484	Shaft.	GIDCO
46941	Strainer	GEGER
48672	Rod.	GNINE
	Use 414615.	
49021	Shaft.	GUKMY
49206	Arm.	GRABE
49207	Arm.	GRACI
49718	Gear	GHITZ
49731	Support.	GUSVO
49732	Thermocouple	GUSUT
61031	Nut.	GHADA
	Use 1 each of 113148 and 2067D21.	
61235	Bushing.	GEYHU
61459	Clamp.	GUVBO
61639	Spring	GHIRS
61722	Contact.	GUAHL
61726	Body	GAUTO
61853	Lock	GHODY
61951	Plug	GIEHO
61957	Seal	GIEIN
61990	Gasket	GEIZE
62024	Gasket	GERHI
62336	Gear	GHYDU
62338	Pin.	GHYFN
62343	Piston	GHIFT
62346	Retainer	GHIOD
62347	Gear	GHIEL
62497	Insert	GNUWT
62497Y3	Insert	GNUYL
62497Y4	Insert	GNUZN
62773	Screw.	GRAUV
62862	Ring	GEZPH
62864	Washer	GEZLA
63276	Ring	GHOUD
63276Y20	Ring	GHOYG
63482	Valve.	GHIXR
63483	Spring	GHIYB
63612	Spring	GHOOP
63630	Ring	GNELL
63630Y10	Ring	GNEMY
63630Y20	Ring	GNENS
63743	Washer	GROMO
63744	Washer	GROLL
63747	Guide.	GOAWC
63747Y2	Guide.	GOAXE
63747Y3	Guide.	GOAYR
63747Y4	Guide.	GOAZI
63747Y5	Guide.	GOBAK
63867	Gasket	GIKKA
63997	Spacer	GADDI

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NUMERICAL PARTS LIST - Cont'd

Part Number	Description of Part	Code Word
63998	Gasket	GADET
64028	Gear	GIPCI
64029	Gear	GIPBO
64031	Gear	GIPOD
64041	Shaft	GIOVU
64050	Bushing	†GIMOB
64050Y1	Bushing	†GIMUT
64050Y2	Bushing	†GIMYK
64050Y3	Bushing	†GINDA
64050Y6	Bushing	†GINER
64051	Bushing	GIRLD
64051Y1	Bushing	GIRMS
64051Y2	Bushing	GIROX
64051Y3	Bushing	GIRUF
64051Y6	Bushing	GIRYP
64053	Bushing	GINGO
64053Y1	Bushing	GINHI
64053Y2	Bushing	GINKZ
64053Y3	Bushing	GINLD
64053Y6	Bushing	GINNE
64075	Bolt	GNAZO
64120	Bushing	GINOX
64120Y1	Bushing	GINPH
64120Y2	Bushing	GINSK
64120Y3	Bushing	GINTY
64120Y6	Bushing	GINUG
64130	Gasket	GITUS
64174	Plug	GUBUZ
64280	Bushing	†GEIVN
64425	Bushing	GIMFU
64425Y1	Bushing	GIMGI
64425Y2	Bushing	GIMHY
64425Y3	Bushing	GIMKU
64425Y6	Bushing	GIMME
64602	Flange	GECOT
64603	Gasket	GECYZ
64621	Ring	GNAGU
64725	Circlet	GRIRA
64730	Bushing	GRIMO
64731	Pin	GRIPU
64814	Bushing	GABCO
64815	Circlet	GIKHU
64870	Ring	GEYYZ
64870Y1	Ring	GEZAK
64870Y2	Ring	GEZBE
64870Y10	Ring	GEZCI
64870Y11	Ring	GEZDO
64870Y12	Ring	GEZEP
64870Y20	Ring	GEZFU
64870Y21	Ring	GEZGY
64870Y22	Ring	GEZIK
64952	Washer	GHOMS
64962	Spring	GRIDY
64990	Housing	GHOGL
64992	Retainer	GHINY
64994	Plate	GHOLL
65125	Adapter	GHILU
65161	Bushing	GEYID
65290	Pinion	GNABE
65468	Capscrew	GIVYB
65657	Bearing	GRAMN
65678	Bolt	GRAOP
65679	Nut	GRATH
65852	Cap	GEUHU
65853	Nut	GEUFI
65855	Nut	GEUGY
65857	Body	GEUCA
65858	Washer	GEUIG
65923	Clamp	GOSAS
65924	Plug	GOSUR
65965	Cover	GATGU
66109	Support	GIWTZ
66112	Bushing	GIYTU
66113	Bushing	GIYYN
66116	Spacer	GNEBO
66116Y1	Spacer	GNECI
66185	Dowel	GEIXA
66186	Shaft	GELCO
66201	Gasket	GIUCA
66251	Gasket	GIZOD
66260	Bushing	GHIUG
66262	Pinion	GHOBI
66263	Bushing	GHOCA
66264	Gear	GHOEK
66266	Disc	GHIMA
66267	Disc Use 113605.	GHOKR
66271	Plate	GUSYL
66276	Support	GUSWA
66315	Gasket	GUDHO
66326	Coupling Use 113512.	GHYKS
66327	Packing	GHYNT
66328	Ring Use 1 of 113752 and 12 of 55D19.	GHYOV
66329	Gasket	GHYPY
66372	Tube	GEALD
66373	Retainer	GEZUX
66374	Ring	GEZYT
66375	Bushing	GAWHU
66375Y1	Bushing	GAWIN
66375Y2	Bushing	GAWKY
66375Y3	Bushing	GAWLA
66375Y10	Bushing	GAWOS
66375Y11	Bushing	GAWUM
66375Y12	Bushing	GAWYG
66375Y13	Bushing	GAXAC
66376	Ring	GHYBO
66377	Coupling Use 113846.	GHYLB
66382	Valve	GHUCO
66383	Spring	GHUHU
66384	Packing	GHUIN
66386	Gasket	†GEDUM
66413	Gear	GIOXD
66414	Bushing	GISBO
66414Y1	Bushing	GISCA
66414Y2	Bushing	GISDI
66414Y3	Bushing	GISEM
66414Y6	Bushing	GISGY
66449	Body	GESOG
66450	Valve No longer supplied.	GESUM
66451	Retainer	GESZA
66452	Spring No longer supplied.	GESYN
66453	Ring No longer supplied.	GETCI
66636	Gear	GNAYA
66677	Nut	GEBAC
66681	Cover	GEDOW
66682	Gear	GHEEK
66724	Bushing	GAWBO
66733	Bolt	GNADI
66757	Ring	GNAHL
66779	Gasket	GEPUG
66848	Nut	GEVCU
67029	Gasket	GIZLA
67297	Bearing	GNIDI
67297Y1	Bearing	GNIEL
67297Y2	Bearing	GNIFT
67297Y3	Bearing	GNIGS
67297Y15	Bearing	GNIHU
67297Y16	Bearing	GHIKO
67297Y17	Bearing	GNILD
67297Y18	Bearing	GNIMY
67302	Spring	GNODI
67311	Screen	GIZUB
67366	Nut	GIXHL
67367	Coupling	GIWRS
67369	Ring	GHYCI
67393	Gasket	†GUECI
67410	Gasket	GEBOX
64760	Stop	GIWIL
67466	Stop	GIWGE
67489	Adapter	GUHNI
67490	Lock Ring	GIRAZ

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NUMERICAL PARTS LIST - Cont'd

Part Number	Description of Part	Code Word
67497	Nut.	GNEKZ
67566	Cover.	GIEKA
67575	Gasket	GIELD
67680	Spacer	GHORT
67768	Spacer	GHYMD
	Use 113511.	
67795	Gasket	GEAWD
67803	Sleeve	GHOZN
67843	Spacer	GNIWK
	Use 113226.	
67843Y1	Spacer	GNIXN
	Use 113226Y1.	
67843Y2	Spacer	GNIYB
	Use 113226Y2.	
67860	Lock	GNIUG
67956	Flange	GRUFT
68019	Bushing.	GUKLA
68135	Connection	GIZMI
68154	Plate.	GNISA
68221	Shaft.	GIOWA
68222	Gear	GIPDU
68325	Thermocouple	GUVAC
68332	Dowel.	GAFUZ
68335	Packing.	GOEKA
68336	Nut.	GOELD
68345	Bushing.	GEJED
68359	Spring	†GEMDO
	Use 112989.	
68360	Retainer	†GEMEL
68364	Support.	GAIGI
68365	Ring	GAIRS
68366	Gasket	GAIKO
68368	Shaft.	GHYAK
68369	Sleeve	GEYUL
68370	Bushing.	GEOSL
68375	Gear	GNAIS
68379	Bushing.	GEWHA
68380	Spacer	GEWUL
68381	Pinion	GEXBU
68383	Cam.	GEWCI
68386	Gear	GEWYN
68391	Breather	GAKYF
68404	Gear	GIKCI
68408	Retainer	†GENEG
68409	Ring	GAFRI
68413	Gasket	GATAK
68414	Spacer	GNAOG
68415	Ring	GAGAL
68421	Valve.	GAJEK
68422	Seat	GAJIM
68423	Stem	GAJOP
68424	Spring	GAJYT
68480	Gear	GIKAL
68498	Ring	GOIEK
68498Y1	Ring	GOIFT
68498Y2	Ring	GOIGL
68498Y3	Ring	GOIIS
68498Y4	Ring	GOIKA
68498Y5	Ring	GOILN
68498Y6	Ring	GOIME
68498Y7	Ring	GOIOP
68498Y8	Ring	GOIRT
68498Y15	Ring	GOISH
68498Y16	Ring	GOITU
68498Y17	Ring	GOIVY
68498Y18	Ring	GOIWL
68498Y19	Ring	GOIXD
68498Y20	Ring	GOIZA
68498Y21	Ring	GOKBE
68498Y22	Ring	GOKCO
68498Y23	Ring	GOKDY
68498Y30	Ring	GOKEG
68498Y31	Ring	GOKFU
68498Y32	Ring	GOKHY
68498Y33	Ring	GOKIL
68498Y34	Ring	GOKOM
68498Y35	Ring	GOKUT
68498Y36	Ring	GOKYP
68498Y37	Ring	GOLAC
68498Y38	Ring	GOLBI
68505	Spring	GROGE
68508	Gear	GNAKZ
68513	Gasket	†GUDIR
68514	Gasket	GEGYL
68515	Gasket	GEHDI
68516	Gasket	GEHEN
68529	Adapter.	GIZNE
68530	Cover.	GIZPH
68531	Plug	GIWZI
68533	Lock	GIZVI
68537	Flange	GOECO
68538	Flange	GOCER
68539	Pipe	GOEBI
68550	Valve.	GROCA
68560	Packing.	GOEDY
68561	Gasket	GOEEK
68562	Gasket	GOCHY
68572	Tappet	GRIBA
68573	Guide.	GRIEN
	Use 113190.	
68574	Socket	GRICO
68585	Impeller	GEYEX
68586	Tube	GAPBY
68587	Tube	GAPCO
68588	Housing.	GRECO
68590	Connection	GNYCA
68609	Bushing.	GIEEL
68610	Gasket	GIEFT
68677	Gasket	GELLY
68778	Pin.	GIWFY
68796	Gasket	GUIEM
68827	Pin.	GOHCO
68832	Elbow.	GRUIM
68837	Clamp.	GORCO
68838	Clamp.	GOUBA
68839	Grommet.	GOUGU
68840	Plate.	GORDU
68842	Plate.	GOUKS
68859	Support.	GUACU
68884	Spacer	GOUEL
68897	Gasket	GRUMU
68928	Spring	†GIAFT
68929	Seal	†GIAJO
68930	Diaphragm.	GIAHE
68931	Collar	GIGOW
68932	Ring	†GIAKY
68933	Ring	†GIAMI
68955N13	Carburetor	GUDEN
68958N11	Wiring Harness	GUAAL
69030	Sleeve	GIYSI
69071	Spacer	GEWFY
69072	Gasket	†GEPEN
69081	Scoop.	GOWYK
69082	Scoop.	GOXCI
69083	Brace.	GOWEN
69084	Brace.	GOWOG
69085	Support.	GOXUB
69116	Pin.	GNIRL
69135	Lock	GROEK
69142	Housing.	GHUBA
69143	Sleeve	GHUEK
69144	Packing.	GHUKL
69163	Bushing.	GEYJY
69164	Washer	GEZOM
69183	Valve.	GROBO
69184	Guide.	GOAPH
69184Y2	Guide.	GOARK
69184Y3	Guide.	GOAST
69184Y4	Guide.	GOAUZ
69184Y5	Guide.	GOAVA
69222	Ring	GADBY
69246	Sleeve	GAOFI
69268N53	Carburetor	GUDAK
69268N54	Carburetor	GUDDI
69271	Washer	GRODI
69272	Ring	GEWDO

† Indicates a part which is listed in more than one place in catalog.

NUMERICAL PARTS LIST - Cont'd

Part Number	Description of Part	Code Word
69273	Spacer	GEWEX
69363	Nut	GNAEP
69430	Bushing	GAWCI
69453	Box	GRUYE
69474	Strainer Use 110029 for foreign military engines. Use 113602 for all other engines.	GEVAM
69485	Brace	GOSYM
69500	Bushing	GAWEK
69501	Collar	GIAGL
69510	Bushing	GOAMN
69511	Gasket	GOBFU
69524	Strap	GOPIK
69525	Cover	GORIZ
69545	Strap	GOPOP
69558	Bushing	GHOFO
69560	Spacer	GNEDU
69560Y1	Spacer	GNEEK
69561	Plug-Spark	GUBYK
69632	Pinion	GNACO
69634	Carrier	GLORY
69655	Coupling	GIPYK
69756	Gasket	GITBY
80137	Screwdriver	GUOCO
80139	Hammer	GUOGL
80145	Pliers	GUOFY
80150	Wrench	GUMZU
80151	Wrench	GUNAD
80152	Wrench	GUNBI
80447	Wrench	GUNCO
80535	Wrench	GUNDU
80536	Wrench	GUNEL
80537	Wrench Use 800315.	GUNFY
80540	Roll	GUOIX
81132	Screwdriver	GUOEK
81403	Handle	GUOHE
81405	Gage	GUOKT
81409	Compressor	GUOLW
81679	Wrench	GUNGD
81900	Wrench	GUNIX
82058	Wrench	GUNKE
82750	Wrench	GUNLS
82848	Wrench	GUNYN
82889	Wrench	GUNNA
83202	Wrench	GUNOB
84258	Wrench	GUOBI
84325	Wrench	GUMHZ
84329	Sling	GUOPH
84377	Tool	GUOMU
84414	Wrench	GUNRT
84861	Tool	GUOND
89608	Arm	GRADO
89609	Arm	GRAEL
89876	Sump	GEFED
89905	Sump	GEFAN
89928	Gasket Set	GUWCA
89957	Piston Use 89992.	GOGHY
89957Y1	Piston Use 89992Y1.	GOGIM
89979N3	Cylinder	GNUFA
89984	Piston Use 89994.	GOGYK
89984Y1	Piston Use 89994Y1.	GOHAB
110046	Seat	GNUOD
110046Y2	Seat	GNUPH
110046Y3	Seat	GNURS
110046Y4	Seat	GNUTZ
110046Y5	Seat	GNUVU
110069	Roller	GRILL
110080	Seat	GNUGO
110080Y2	Seat	GNUHI
110080Y3	Seat	GNUKY
110080Y4	Seat	GNULN
110080Y5	Seat	GNUME
110117	Bushing	GLATU
110169	Gear	†GIPAX
110219	Spring	GOHDY
110276	Bushing	GIZAN
110298	Bushing	GLANC
110423	Coupling	GEKYZ
110424	Spring	GIBYK
110425	Plug Use 113960.	GIBUN
110426	Shaft	GEKUB
110427	Gear	GELEN
110429	Sleeve	GEMIT
110432	Bushing	GEJAC
110433	Retainer	GELUP
110438	Gasket	GELYZ
110439	Gasket	GEOMU
110489	Sleeve	GHUGR
110516	Disc	GNIZM
110516Y1	Disc	GNOBA
110516Y2	Disc	GNOCO
110562	Gear	GELDU
110563	Gear	GELIK
110567	Spring	GEUEK
110568	Valve	GEUDO
110633	Ring Use 114086.	GOMCA
110633Y1	Ring Use 114086Y1.	GOMDY
110633Y2	Ring Use 114086Y2.	GOMEK
110633Y3	Ring Use 114086Y3.	GOMFO
110633Y4	Ring Use 114086Y4.	GOMGI
110633Y5	Ring Use 114086Y5.	GOMHU
110633Y6	Ring No longer supplied.	GOMIS
110633Y7	Ring No longer supplied.	GOMOV
110633Y8	Ring No longer supplied.	GOMUX
110633Y15	Ring Use 114086Y15.	GOMYT
110633Y16	Ring Use 114086Y16.	GONAB
110633Y17	Ring Use 114086Y17.	GONCI
110633Y18	Ring Use 114086Y18.	GONDO
110633Y19	Ring Use 114086Y19.	GONER
110633Y20	Ring Use 114086Y20.	GONGU
110633Y21	Ring No longer supplied.	GONIL
110633Y22	Ring No longer supplied.	GONOG
110633Y23	Ring No longer supplied.	GONUP
111033	Diaphragm	†GIAIR
111092	Shaft	GIKDY
111149	Ring	GHIGI
111149Y10	Ring	GHIHN
111149Y20	Ring	GHIIW
111149Y30	Ring	GHIKO
111203	Bushing	GIWBO
111204	Bushing	GIWCI
111205	Bushing	GIWAC
111206	Bearing	GIWEM
111207	Bushing	GIWDN
111356	Gasket	GEMAC
111357	Gasket	GEOOR
111370	Flange	GADCO
111419N11	Wiring Harness	GUABO
111513	Cover	GOBBY
111514	Cover	GOBDO

† Indicates a part which is listed in more than one place in catalog.

NUMERICAL PARTS LIST - Cont'd

Part Number	Description of Part	Code Word
111540	Flange	GRUEN
111541	Clamp	GUAPL
111542	Bracket	GUAOT
111543	Bracket	GUANS
111544N1	Carburetor	GUDFU
111581N3	Fuel Inlet	GUFDO
111722	Book-Instruction	GUPMO
111787	Wire	†GRUZA
111873	Magneto	GRUCI
111874	Elbow	GRUGE
111977	Gasket	GRIFT
	Use 114431.	
111978	Brace	GOWIM
111979	Brace	GOWUL
111980	Scoop	GOXDU
111981	Scoop	GOXAB
112009	Brace	GOTCY
112010	Brace	GOTIR
112011	Cover	GOBCI
112012	Cover	GOBEK
112313	Bolt	GEXDI
112315	Gear	GEXAG
112316	Pinion	GEXCO
112354	Packing	GAGBI
112381	Spring	GROKU
112382	Spring	GROIL
112403	Shim	GANDE
112984	Cover	GIKIX
113103N1	Elbow	GUAFY
410082	Cover	GIRBE
410246	Housing	GIMDA
410596	Tube	GIXDU
410870	Housing	GULBI
410871	Housing	GULCO
411004	Shaft	GHIWL
411182	Screen	GUIBA
411227	Bushing	GAXIS
411263Y1	Rod	GNICA
411413	Support	GUKKU
411549	Gear	GNATI
411665	Shaft	GENOZ
411667	Housing	GEOPH
411676	Screen	GALDE
	Use 69911.	
411705	Shaft	GENUX
411716	Breather	GATES
411736	Valve	GAJAB
411771	Adapter	GUGEZ
411775	Crankcase	GABAB
	Use 415779.	
411792	Crankcase	GABBE
	Use 415796.	
411811	Housing	GAHBO
411836	Rod	GREBA
	Use 416453 for Commercial engines.	
411883	Shaft	GIEGU
411884	Support	GIEDI
411971	Shaft	GIYRO
	Use 412315 for Commercial engines.	
412064	Piston & Lock	GHOSH
412109	Plate & Screw	GORGP
412186	Shaft	GIFZU
412286	Deflector	GOWCI
412336	Cover	GIRCO
412362	Bushing	†GEMUK
412366	Housing	GAOEZ
412379	Shaft	GEYFA
412381	Shaft	GEYGO
412554	Housing	GIMEN
412559	Dual Accessory Drive	GIMAR
412562	Dual Accessory Drive	GIMCO
412584	Shaft	GIGAB
412606	Deflector	GOOVI
412607	Deflector	GOOUL
412608	Deflector	GOOYB
412664	Support	GNAUC
412678	Deflector	GOOZU
412717	Crankcase	GAFHA
412837	Deflector	GOPEG
412909	Plate	GAMZO
	Use 416453 for two speed impeller drive engines.	
413331	Shaft	GEMBY
413332	Shaft	GENIT
413333	Shaft	GEMMY
413336	Body	GEITY
413361	Pump	GEIOG
	Use 414111.	
413392	Valve	GHUDI
413453	Gear	GIBOX
413485	Dual Accessory Drive	GIMBL
413551	Cover	GAWAC
	Use 415844.	
413817	Screen	GUICO
414008	Crankshaft	GIVRI
	Use 415868.	
414027	Shaft	GEMCI
414044	Shaft	GEMOR
414109	Body	GEIUW
414110	Pump	GEIRS
414111	Pump	GEIPH
414233	Crankshaft	GIVSL
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414305	Deflector	GOPAC
414313	Deflector	JOPDY
414334	Deflector	GOWDA
414348	Gear	GIABY
414391	Shaft	GIYPH
	Use 415849.	
414402	Piston	GOGAC
	Use 416314.	
414402Y1	Piston	GOCBI
	Use 416314Y1.	
414486	Generator	GUKHO
414487	Generator	GUKIB
414565N3	Cylinder	GNUEK
414714	Deflector	GOOXE
414846	Deflector	GOPBI
414997	Bracket	GEWGU
415191	Deflector	GOPCU
415267	Piston	GOGEN
	Use 416009.	
415267Y1	Piston	GOGGA
	Use 416009Y1.	
800060	Wrench	GUNPH
800197	Adapter	GUOOZ

† Indicates a part which is listed in more than one place in catalog.

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